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ROYAL ECONOMIC SOCIETY

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MARCH, 1926

FAMILY ALLOWANCES

1. It is possible in a number of ways to cause the money income of the country to go further than it does now in terms of real income or satisfactions. But all the forced or voluntary sharing of incomes which would have this immediate effect are not practicable, because of reactions on industriousness, training, equities between persons, and in the end the sum of national wealth. Arguments which show that a particular redistribution will at once make money go further are insufficient to show that such redistribution is desirable.

2. Wages and salaries in this country do not vary with size of family, and it is suggested that this is an anomaly which amounts to a culpable and absurd neglect, or to a "disinheritance," of a large part of the nation's children. What is in question is the whole conception of the Trade Union standard rate as now administered. It is obvious that this conception need not have neglected the family merely because the standard rate is uniform for the same work. But it may have quite deliberately neglected to meet, out of the incomes due to some men for their work, just any charges for the large families brought into existence by other men. The following quotations from various sources, with the quite lawful alternatives which I have appended to them, will show this point.

"To give the same wage to an unmarried man and to a married man with a large family is the same thing as putting on the table the same quantity of food for the one as for the other. The unmarried man will have a surplus, while the married man will not be able to supply his needs." (*International Labour Office Report*, p. 4.)

"For the great majority of the workers it is evident that the wage is not differentiated according to need." (*Ibid.*, p. 6.)

"By far the greatest cause of primary poverty is the failure

of the wage system to adapt itself to the needs of the variously sized households actually dependent on the wage-earner." (Rathbone, *Disinherited Family*, p. 27.)

The alternative statements are as follows:

"For earners of the same wage to be unmarried, or married with large families, is the same thing as putting round the table a larger demand for the same food earned by the one as by the other. The unmarried man will have a surplus, while the married man will have created needs which he is unable to supply."

"For the great majority of the workers it is evident that the needs are not adjusted to the wage."

"By far the greatest cause of primary poverty is the failure of the family system to adapt its needs to the various earnings actually obtained by the wage-earner."

3. The standard rate does not imply that there are two payments, one for the value of the work, another for the cost of the standard of living. It implies that employment in an industry or grade should not go beyond the point at which the value of the work covers the cost of that standard.

Does this standard include any particular size of family? It might do so in more than one way; but in any case only implicitly, the more explicit idea being that this is a matter for personal responsibility. Implicitly there might be reference to either a normal or a maximum; for it is obvious that the same wage can be exhausted for families of different size with different margins for comfort. But whether a normal or a maximum family be attributed to the idea of the standard rate, there remains the fact that a third of occupied men are unmarried, and that there is less than one child per occupied man in this country. Then must the escape be on the lines of imputing to the standard rate in this respect the conception of a minimum, thereby leaving all families to be provided for otherwise than by wages? Has Trade Unionism been engaged in an absurdity in requiring, as the sole source of income, any uniform rate at all? This is what is contended, but in the strange company of the other contention of equal pay for equal work. Who is it that is being absurd, or can this confusion be escaped by any other reasonable implication of the standard rate?

4. Children cannot be considered as a pure tax on wages; though allowances have been referred to abroad as "the special *indemnities* paid to the workers on account of their families." If children were a pure tax, an obligation undertaken by parents

on behalf of the community, clearly the whole case would be different, and incomes would have to include two payments, one fixed by work and one variable. But surely it is the truer view that family life should be regarded as a source of satisfactions, or a usual way of obtaining the real values from money. There would not then be any paradox in supposing wages to be based on families of two or three dependent children, even if most families are not of the size supposed. Though family life is not the only form of expenditure, either absolutely or at any time of life, yet a family of a certain size might be taken as a standard of reference, showing the general estimate of the satisfactions which wages ought to yield, whether taken in this or in any other form of expenditure. If the same work should give the same real income, that income can be tested by reference to a usual form of obtaining it, without implying that everyone is obtaining it in that way. In other words, a certain size of family can be taken as typical for the purpose of judging wages, though it is not supposed to be an actual average of family sizes. The unmarried man doing the same work would thus be regarded as entitled to the same purchasing power over satisfactions otherwise realised. This point of view can fairly be maintained against the implication that children are purely a question of cost, or, what comes to the same thing, that wages should mean a double payment instead of a double aspect of the same payment.

5. But, in fact, no particular size of family can be said to be assumed. From the point of view of maintaining the population, the time at which children are born affects the number necessary for this purpose; a married couple may or may not see their grandchildren in the course of their own working life. What is normal for this form of expenditure must depend on the growth of national wealth itself, and of education in respect of standards of living. There is no assumption that population should grow at any rate. The standard of life is the prior idea, whether realised in family life or otherwise. That standard involves the idea of an amount of satisfaction, or opportunity for self-realisation, but the volume is variously compounded, some satisfactions becoming "phantom" if others are specially desired. It is this variety in the form of expenditure which is at the bottom of the argument that there is no size of family which, if assumed in standard rates, will not lead to an absurdity; and it is truer to the spirit of the standard rate as administered to suppose that the wage claim is compared with the level of

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prices, the sense of adequacy being the creation of historical evolution.

6. But it in turn asks for consideration of other aspects of wages than costs of personal subsistence. In particular there is the question of the expenditure of the unmarried man. It is, of course, easy to show up much of this as banal; though middle-class standards are difficult to apply fairly to the wage-earner, who may in turn comment on the futility of much middle-class expenditure. But a time of life when a part of income is free from the claims of mere living costs is of social importance to the future of family life itself. The pressure to raise the standard of life depends partly on the knowledge and experience of the other things that money can buy, the things which a man may aim at enabling his own children to obtain. He may wish to invest in himself; and the interests which this implies should not be shut out simply on the ground that, being unmarried, he must come to an unmarried cost of living. Then he will never be off a purely cost of living view of life, or be disposed to want any other for his children. This is a conception of wages we should work away from rather than develop.

7. But if a country is poor, must not all such considerations give way before the practical exigencies, which are those of maintaining the families as they are, however badly related to individual incomes? Of course this must be done; there must be a system of relief, whatever it is called. A large and increasing part of the national income is now redistributed for this purpose; and no further proposal is revolutionary in a society containing so much poverty as ours. We do not, however, make, and no one suggests that we should, just any redistribution that will immediately make the national income go further in real values. The reactions are important, and in this case the question is mainly one of the effect on population of direct subsidies to dependent children. The world has still resources which make it possible to find a good living for a larger population, but their distribution is important. The resources of this country cannot ensure an increasing standard of life to a much larger population. A simple subsidy may not be a good way to guide our birth-rate. It is one thing to relieve distress, another to adapt the wage system so as to create the conditions that require relief. But it is held that this danger will not be incurred because the birth-rate shows that better incomes lessen it. The higher the level of wages or incomes, the smaller at present is the family. Therefore a redistribution which increases the incomes of the

larger households will not increase the birth-rate, but may tend to reduce it, by creating the desire and possibility of a better standard.

It should, however, be pointed out that on the principle of family endowment the increase of the family must precede the increase of income. This is a condition entirely different from that on which the facts about the birth-rate now depend. The limitation of the birth-rate where wages are comparatively high follows from the fact that such limitation is not accompanied by any decrease of income, and that therefore it renders possible a better standard of comfort for the smaller number. The essential conditions are changed as soon as limitation of the family and of income go together; the whole motive for providence must weaken unless some other basis for it is supplied. For that reason an argument cannot be drawn from facts about the birth-rate as depending on different levels of constant wages, to what would happen if income varied only on the condition that the family also varied. As there may be other motives than those which depend only on income for the limitation of the families of better-off people, there would still remain differences in birth-rate if family allowances were paid, but this is quite consonant with a tendency toward increase on all the levels. What else, indeed, is to be expected from subsidies to children, payable on the basis of their number, than that in many families this will just turn the scale, and that these families will increase as the amount of subsidy is increased? This is largely why family allowances have been established in France; and if in this country there were anxiety about the fall of the birth-rate, and family allowances were proposed as a remedy, surely everyone would regard the proposal as being, in fact, a remedy. Why then, because we are discussing something else, invent reasons why the same cause will have the opposite effect? As a matter of experience, we cannot say what would have happened to the birth-rate of France apart from the allowances; it has not increased as was hoped.

8. There must be considered the fact that the allowance system has precedents in this country, which no one criticises, or wishes to alter where they still exist. The obvious examples are the administration of poor relief, the separation allowances during the war, and the income-tax abatements. But as regards payments to households whose income has failed, is not this different from the case of the wage-earner just by the difference between relief and earnings, and is there any more to say? Poor

relief is administered in this way, not for the purpose of endowment, but for the purpose of restriction; it is not limited to children. Can we extend to normal industry and long reactions the measures applicable to immediate relief? In the same way, war allowances depended on the suspension of the wage system; they were not paid to wage-earners at home. Methods applicable to such emergency conditions are not continuable without examination of their relation to conditions which differ mainly as regards the time and scope given to their tendencies. We cannot continue with currency inflation and the creation of debt, because we have now to consider the economics of industry, not of war. As regards the income tax allowances, this precedent must be admitted; a distinction might be argued, but one which could not be attributed to the spirit of this policy. It would depend on the *quality* of family expenditure as being more obligatory, even though it realised satisfactions. That these allowances apply also to wives is a point that need not be pressed.

9. The long influences of family allowances would be different according as one or other of two main proposals were in question. These are the pooling system and the raising of funds out of general taxation.

In this country the pooling system would work as follows. There is about one dependent child per occupied adult man. On an average, therefore, each man would be responsible out of existing wages for the maintenance of one child. The employer would pay that amount into the pool, and would deduct it from wages, since it would be an expense incurred in respect of the worker's employment. The wage of an unmarried or childless man would be reduced. A man with one child would draw from the pool just what had been paid on his account, and would be left as before. A man with three children would pay in the maintenance of one child and draw that of three; he would be better off *net* by the maintenance of two. Such an arrangement could, of course, be made by the men themselves through their Unions, but it is more comprehensive if administered by the employers. By this method, if there is to be no reduction in the income of labour as a whole, the cost of production is unaffected. It is a dangerous tendency of the "phantom" argument that, since phantoms do not exist *anywhere*, it enables a claim to reduce costs only by the implication of a reduction in the total income of labour. This statement is true as an average if the employer pays in on the basis of his wage bills, and more

strictly if he pays in per head of his employees. It does not in any case increase but redistributes the income of labour.

Then the increases got by some wage-earners are deductions from others, and the difference between payments for the same work is greater than if the allowances had been charged on general taxation. The effects on efficiency of work will be worse. An unskilled man may draw more than a skilled, at the expense of the latter. More enthusiasm and social spirit are required to make this method work well than are required for the other method. But it puts no new charge on taxation.

There may also be the fear of introducing some confusion into wage bargaining, since there will be alternatives to straight variations in rates. Advances may be offered to married men alone, or changes in the scale of allowances, and so forth. This has been a cause of difficulty abroad, and the signs are that in this country labour is distrustful of the same results, at any rate under capitalistic employment.

It is also clear that the pool system will make no provision for the 750,000 persons who are returned as working on their own account, many of whose incomes should bring them within the scope of any fair scheme.

The nature of these allowances would also be the cause of acute problems in bad times; either then or during strikes a special feeling would be aroused by the cessation of a provision for maintaining children. Such occurrences would prejudice funds based directly on industry as compared with the national method.

10. A charge based on taxation would not directly lower the wage of any employee, because it would not be a charge that could be attributed to the fact of his being employed. It would, of course, have indirect effects according to its magnitude. If it were accompanied, as has been suggested, by a proposal to reduce wages, this reduction would be ineffectual against the competition of employers for labour, up to the estimated value of the product of labour. The charge would fall on the community like any other tax, without reference to its application. It would mean an addition to the income of labour without a traceable influence on labour costs. It would be a transfer to labour as a whole, subject to a condition as to its distribution there.

Postponing a more general question, the cost of such a scheme would, in view of its indirect influences on industry and employment, be a serious problem. It would differ from other already

existing social schemes in that the idea of insurance is much less applicable. People do not as a rule want to be unemployed or sick or widowed; and measures are taken to guard against the deliberate incurring of the thing insured when it can be simulated. Plainly the begetting of children is in a different category. It is not a reply to the problem of cost to argue that there will merely be a redistribution through taxation. We would be absolved from many serious problems if this were all. The application of these funds would be mainly to expenditure, while their source would be to a considerable extent savings. As we do not know without trying how much the birth-rate would increase, it is only possible to aim at a minimum estimate based on things as they now are.

In 1921 there were about 8½ million children of occupied men in England and Wales, or about ·82 children per occupied adult man. Taking only men insured under the unemployment scheme, about 8½ millions for Britain, this would show about seven million children to provide for by allowances. It would be a little more than this, since working-class families are larger than average. Per shilling per child per week the cost of allowances could not be safely reckoned at less than twenty millions annually. About one-sixth should be added if the scope of allowances were men insured under the health scheme. It is unlikely that allowances would average less than three shillings per child, so that from sixty to seventy millions would be a minimum estimate, according to the scope. Much larger figures have been quoted by advocates of the proposal. It is assumed also that there are no reactions which increase the size of families, as indicated above.

Such an addition to taxation in the near future is a serious proposition, and needs no comment. It could, of course, be got out of the drink bill, or the tobacco bill of the community, in the sense that it is less than either of these. Plainly, however, the positive question is with what consequences it could soon be obtained from taxation. Savings in other branches of present expenditure on distress should be offset against the chances of more children than at present. If we were to carry this through in any near future, it would imply the earmarking for the purpose of savings in some other direction.

11. The more general question, however, is not disposed of by the problem of cost. When one has read the eloquent arguments and statements on this proposal, there remains at the end the broad fact that it is proposed to pay cash subsidies to parents

in proportion to the number of their children. It is then seen that the beneficial results which immediately follow to the recipients are simply those of any subsidy or gift, and that there need be no serious social problems at all, if such short cuts to their solution are available. Some families are so much larger than others with the same wage that they are in distress; there is no difficulty; take some of the income of the latter and give it to the former. Not to have thought of that is the economists' "neglect of the family." Our Trade Unions have not thought of it either; because they do not make this redistribution from the more to the less provident, the wage system is held to be crazy. It is, in fact, the strength of the adjectives used by some writers in this respect which betrays the general tenor of the exposition. If we had worked such a system of allowances, and had become involved in consequent problems of industrial deterioration and high expense, might not a quite plausible case have been then presented for the method of paying "equal wages for equal work," and might not another Miss Rathbone have been arguing indignantly against the "crazy" system of making A pay for B's children, as if there were no such thing as personal responsibility, as if storks brought babies, or as if children were related to their parents as a tax is related to the payer of it? One cannot bury this general aspect of the argument under the admitted immediate benefits to the recipients of such subsidies. Unless we are deliberately out for an increase of population, it is crude and naïve to camouflage by invective the daring side of the proposal to bring back allowances, on this scale, into national wages.

12. The proposal for family allowances has been connected with two other questions from which it should be kept distinct. First, the payment of equal wages to men and women for the same work. This should be considered on its own merits; if it is just, it should be done in any case, whether family allowances are paid or not. It does not itself afford a reason for an alteration, involving new questions of equity, of the whole basis of remuneration. Still less when that change is one which will mean that equal work will not receive equal pay. Second, the right of married women to claim a part of the earnings to which their household work has contributed. This also, if just, should be granted on its own merits, and is quite feasible under present arrangements. In these distinct questions it may be found that more than one "complex" is involved.

13. It appears that a new form will have to be given to the

methods of administering the care of children when the Poor Law is reformed. The Ministries of Health and Education will have in some way to undertake functions of maintenance, and it is possible that a children's Authority may be constituted by arrangement between them. Is this not a better idea to develop than that of paying cash into households on the mere condition of so many children born? There must be a proper control of expenditure incurred to meet distress, which should also be incurred so far as there is distress. Are we more likely to prevent distress by a clear distinction between wages and relief, or by cash allowances paid on condition that children are born to use up these and perhaps, after all, further sums?

D. H. MACGREGOR

THE LAND AND THE NATION [1]

THE Committee of Liberals which has been considering the present state of agriculture and of rural life generally has set forth in a Report of 584 pages the discoveries it has made and the conclusions to which it has come in the course of its excursions into the country during the last three years.

The Committee holds that, while some British farmers are skilful agriculturalists, the majority are not making the best use of their land, the proportionate output in Great Britain being less than in some other European countries. In spite of costly efforts, the number of small holdings is getting less, and England remains chiefly a country of landless labourers, dependent solely on wages for a living. Owner-occupiers are more in number than before the War, but three-quarters of the cultivated land is still worked by tenant farmers, whereas in other countries ownership in some form predominates. Hence the conclusion is reached that our system of land tenure is at fault. The landowner, it is said, has ceased to lead in agricultural development, and can no longer afford to find adequate capital for the equipment of the land. He must be expropriated.

The Report points out that in the mediæval manor the lord held by military service and every sub-tenant had both rights and duties on the land. By the decay of the manor and the growth of enclosures has arisen the modern system to which the Report gives the bad name of "landlordism." To this all evils are traced. To cure these evils the State must now resume possession of the land and require adequate cultivation, the modern equivalent of feudal dues, from those to whom it leases it. They will be given security of tenure at fixed rents in return. When the change is effected, the administration will be entrusted to a new, democratic County Agricultural Authority, partly elected, and partly nominated by the Ministry of Agriculture after consultation with the local Unions of farmers and labourers.

It is interesting to find the Liberal Party, even though it be

[1] Rural Report of the Liberal Land Committee, 1923-25. Hodder & Stoughton, 1s. net.

somewhat late in life, converted to a belief in the benefits of the feudal system. Again, we seem to remember Mr. Lloyd George railing at landowners because they were rich men who toiled not nor spun. It is therefore a source of some pleasure to find them now blamed for being poor by the Party which invented death duties and made them so.

But the Report is not to be laughed out of court. It contains the result of much hard work; its criticisms are sometimes justified, and are generally better than the ignorant nonsense about rural matters that often proceeds from urban or sub-urban sources; it contains an elaborate and, on its own unsound lines, an ingenious scheme for a new system of land tenure, and, above all, while proposing to nationalise the land, it abjures the hopeless idea of nationalising agriculture, as advocated by some Labour reformers who wish agricultural workers of whatever grade to be salaried servants of the State with no pecuniary interest in the success or failure of their operations.

Its main contention that the present system of land tenure is breaking down owing to the poverty of country landowners, and their consequent inability to maintain the equipment of their estates is supported by the recent book of Mr. Orwin and Mr. W. R. Peel. Yet I venture to think that the whole of the Liberal Report, including that contention, is based on a partial reading of present indications and an incomplete appreciation of the fundamental economic and social causes which have produced them. I believe that the terms of expropriation proposed in the Report are unjust to landowning families, that the scheme of administration would involve the State in heavy financial loss, and that it would fail to produce the benefical effects on agriculture and rural life that its authors desire.

In the first place, the Report produces well-known evidence to show that the proportionate area under the plough is smaller here than in countries like Germany, and the gross output of food therefore less. But the proportion between arable and grass land is an affair of prices and costs on the one hand, and of soil and climate on the other. Heavy land in the moist West of England cannot be worked under the plough, and light land in dry East Anglia, and still more in Germany, will not carry permanent grass. As with other British producers, the farmer specialises in high-grade goods, in his case milk and beef, which are most economically grown on pasture where good herbage can be obtained.

With arable land still going down to grass, agricultural employment is decreasing, yet the money returns from grass are about the same as from arable land per acre, and higher per man, so that better wages can be paid. The advantages are not all on one side. From the official returns, the yield per acre of British crops seems a little lower than it was in 1870, while in some other countries it has increased. These returns need care in handling.

Professor Macgregor, from the evidence obtained as a member of the Tribunal of Economists in 1922–24,[1] has pointed out many of the fallacies that underlie the prevalent idea that England is badly farmed. It is misleading to compare crude yields in countries where natural and economic conditions are different. By reducing the yields as far as may be to comparable terms, Macgregor has obtained a composite index of productivity, which makes Belgium 164 and France 92, while Britain, Germany, Denmark and Holland are all on a par at about 130. These results were published in the Report of the Tribunal in 1924. They have not been controverted.

Of course if all farmers were good farmers, land would yield more. The amount of ability in the nation is limited, and, while something may be done to develop ability in those who have it, it cannot be created. In agriculture, success depends somewhat on a knowledge of the peculiarities of each field, even of each animal, and on the skill with which that knowledge is applied. Hence general rules are of limited use and great divergencies are inevitable in the results.

The level of economic output depends on the relation between prices of produce and costs of production. If prices rise or costs fall, it pays to put more labour and fertilisers into the soil, the yield per acre increases and marginal grass land can be ploughed up. The dependence of the area under the plough on the price of corn is well known—it is illustrated by tables given in the Report of the Agricultural Tribunal of Investigation. When prices are low and costs are high, as at present, an extra yield can only be wrung from the land at an expense which means a loss on the transaction. British farmers are quite well able to increase their output when times warrant the necessary outlay.

The idea that the production of food should be increased regardless of cost is one that the members of the Liberal

[1] Cmd. 2145, 1924, p. 151 *et seq.* ECONOMIC JOURNAL, 1925, Vol. XXXV. p. 389.

Committee themselves would scout, yet it underlies much of their Report. Take, for example, the following extract:[1]

"Perhaps the most striking example of what can be done with English land is derived from the Midlands, where an Englishman took over some years ago 500 acres of land to reclaim, which at the time was yielding no income to the landlord, except for shooting, and producing no crops. It is now carrying a considerable number of stock, cattle, pigs and poultry, producing valuable crops and paying an annual wages bill of over £1000." The tenant started with a capital of "one thousand pounds raised through the bank and guaranteed by his two brothers" The landowner, though "he contributed nothing to the success of this very striking bit of reclamation, was, at any rate, not in any way obstructive."

Now, unfortunately for the Liberal Committee, this land was identified, and correspondence which appeared in *The Times*[2] showed that: (1) the landlord spent over £6000 on houses, buildings, etc.; and (2) the Ministry of Agriculture took over the farm in 1918, worked it through the local Agricultural Committee for three years and expended not less than £10,000 on reclamation.

The recklessness of statement thus revealed does not speak well for the general care and accuracy of the Report. But a more serious point remains. Over £16,000 has been spent on this land besides that contributed by the tenant. Even now further expenditure is needed on reclamation, buildings and fencing before the farm can be satisfactory. The present rent is £286 6*s*. 8*d*.

Suppose we reduce the £10,000 spent by the Ministry by one-half, to allow for the extravagance of public administration and the high cost of work when it was done. We still have an expenditure of £11,000 to produce an increase in annual value of £200 or £300 a year. Whoever owns the land, whether the most grasping of landlords, the most worthy of occupying owners, or the most democratic of County Authorities, would find many such proceedings a short road to ruin.

Of course this is an extreme case; better results might sometimes be shown. But the point at which improvements cease to pay is reached sooner in England than in some parts of other countries, both because costs are higher and also because the opportunities for the profitable investment of capital and labour are greater. It pays better in England to invest in

[1] Report, p. 115 *et seq.*

[2] October 21st to October 29th 1925.

beer or tobacco or cocoa than in the improvement of land, and better to become a railway porter, or a bricklayer's assistant, or even to remain an agricultural labourer, than to work as hard on a small holding as does a Dane or a Belgian. The Agricultural Tribunal of Economists, after careful investigation, estimated that the real wages of farm labourers in this country even before the War were higher than in Denmark or in Holland, and higher by 25 to 40 per cent. than in Germany, France or Belgium.[1] More small holdings are desirable to give adequate opportunities to exceptional men, but it is useless to expect the intensive cultivation of the larger part of English land on Belgian lines till England is a much poorer country than she is to-day.

If, perchance, we accept the view that English land is underfarmed, the Report next tries to persuade us that it is largely due to the tenants' want of security of tenure. This idea has inspired most of the agricultural legislation of recent years. Nowadays the unfortunate landowner cannot regain possession of a farm let on a yearly tenancy without paying heavy damages, unless he indicts his tenant for bad cultivation and the County Agricultural Committee endorses the charge. Even if a landowner be willing to incur the odium and trouble involved, it is unlikely that the Committee will make an order except in gross cases. The consequence is that "security" falls alike on the good farmer and on the bad.

The Report itself recognises the failure of this policy.[2] "To the end of 1924," it says, "531 applications from landlords or from agents alleging bad farming had been received, and the County Committee had granted the landlord relief from paying compensation in 292 cases," while the lowest estimate of bad farming, 5 per cent. of the whole, means 20,000 to 40,000 holdings. "The recommendations made for increasing tenants' security of tenure by the Liberal Land Enquiry Committee of 1913 are in principle embodied in the present Agricultural Holdings Acts. The machinery, however, is not at all that recommended by the L.E.C. The effect has to be acknowledged as disappointing. Lord Bledisloe, in the remarkable address" he gave to the British Association in 1922, declared that the Acts "have really put the bad tenant on equal terms with the good, to the great detriment of the industry. It seems to us," adds the Report, "frankly impossible to give good farmers that fuller security

[1] *Loc. cit.*, p. 35.
[2] Report, pp. 446 and 448.

which they still require without stultifying the community's claim to secure the proper cultivation of the land."

Now that is sound, good sense. But in spite of this acknowledged failure, the Report advises, not a repeal of the Act, but an intensification of the policy contained in it. And, as another worse failure is certain to follow, it proposes to upset the whole system of British land tenure to give the policy a chance, apparently in the hope that a new, more democratic County Agricultural Authority will be willing to eject bad farmers and secure an increase of food production.

But would this result follow? I doubt it. If the County Agricultural Authorities resemble the present Committees, they will be very slow to say that a farmer is to lose his means of livelihood, and an increase in security of tenure, as in the past, will intensify slackness and inefficiency. If, on the other hand, the democratic element in the Authority produces a change of policy, it will be in the direction of the peasant outlook, of leniency towards ineffective small holders with a jealousy of larger farms, even if efficient, and a determination to take every opportunity of breaking them up. There is ominous evidence of this in the descriptions given in the Report of meetings held in villages to discuss the proposed policy. The end would then be a return towards subsistence husbandry, and a shrinkage instead of an increase in external food production.

Anyone with some knowledge of farming on the one hand, and of the working of Local Authorities on the other, will feel the inherent difficulties of controlling all the land of a county, and maintaining its standard of cultivation, by means of a Committee—any Committee, but more especially such a Committee as the Report contemplates. Besides the innate faults of its own constitution, there must be duplication of duties and conflict of authority with the Agricultural Committees of the County Councils, which are to retain some of their present functions.

The Report considers the usual 5 per cent. on the gross rents allowed by private landowners for management as excessive, and proposes to debit cultivating tenants with 3 per cent. on the net rents. I think the authors would have been well advised to study some of the accounts of County Council small holdings before committing themselves to this estimate. The only county for which I have details at hand spent on management in the year 1924–25 a sum which works out at 20·9 per cent. of the *gross* rents. Apparently any excess annual cost of the scheme beyond the 3 per cent. charged on the tenants is to be met out of a

Central Land Fund, accumulated mainly from the proceeds of the sales of land for building and other non-agricultural purposes.[1] That is to say, the Report proposes to use capital to pay for deficiencies in income.

Again, the "cultivating tenants" are to be given absolute security and fixed rents as long as they farm well, with power of bequest to sons or other near relatives able to carry on the farm. There is no provision for the friendly remissions of rent which characterise present dealings of landlord and tenant in bad times. Nevertheless, as Colonel Tomkinson has pointed out,[2] by leaving or threatening to leave his holding, the tenant can oblige the County Authority to exercise its power of re-assessing rent on a vacancy, and thus rents will be forced down in times of agricultural depression. On the other hand, when times improve, rents will remain fixed, and every farmer will find a son or other relative to take on property rented below its economic value. From the national point of view, the whole financial scheme is radically unsound. And this defect is not one which can be cured by modifying details. It is inherent in any system which gives a tenant security of tenure while leaving him free to throw up his holding. It can be avoided only by occupying ownership on the one hand, or by a return to ordinary, honest, straightforward terms of tenancy on the other.

Of course agriculture has been through a bad time, and arable farmers have suffered severely. But the cause of the trouble is well known, and has nothing to do with land tenure. As the Farmers' Union steadily points out, the root of the evil is unremunerative prices, and a masterly analysis of agricultural depression is given in the recent Report of the Committee of the Ministry of Agriculture on the Stabilisation of Prices.[3] Whenever the general price level is falling, agricultural produce falls equally with other wholesale commodities, and the arable farmer, owing to the slowness of his turn-over, the length of his economic lag, suffers more than most other producers while the fall is going on.[4] For countries on a gold standard, the price level has, of course, depended in the past chiefly on the supply of gold and the credit based on it, compared with the demand for currency and credit.

From 1820 to 1835, the failure of the South American mines, financial stringency and a growing demand made gold and

[1] Report, p. 351. [2] *The Times*, November 30, 1925.
[3] *Economic Series*, No. 2, 1925. 1*s.* 6*d.* net.
[4] ECONOMIC JOURNAL, December 1925, Vol. XXXV. p. 536

credit relatively scarce. Protection did not save farmers from a disastrous fall in prices with consequent widespread ruin. In spite of the repeal of the Corn Laws in 1846, and accompanying prognostications of disaster, the discoveries of gold in Australia and California led to rising prices and agricultural prosperity from 1848 to 1875. The demand for gold for currency in Germany and elsewhere then outran the supply, and the great depression began, intensified by bad harvests. The price of cereals fell by 50 per cent. in twenty years, but the price of other wholesale commodities fell by 40 per cent., and this latter figure gives a rough measure of the effect of monetary causes. Only the remaining 10 per cent. represents the depressing result of foreign competition and cheap transport, to which the whole trouble is usually assigned. The Stabilisation Committee points out the relevant fact that other nations suffered equally from agricultural depression, even those whose competition was blamed by British farmers. The only two countries where agriculture flourished during those years, and land increased in value, were India and Argentina, whose currencies, based on silver and paper respectively, were not appreciated by the shortage of gold. The long depression in England only ceased in 1900, when the output of the new gold-mines in South Africa began to raise prices.

Similar causes, on a more violent scale, have produced the hectic rise and the headlong fall of agricultural prices and prosperity during and after the War. The rise due to inflation was controlled by the fixing of prices, which (quite rightly) saved the nation a hundred millions or more at the cost of the farmers. But the measure of insurance against low prices given to farmers in return by the Corn Production Act was repealed as soon as it became operative.

Just at present, agriculture is at the bottom of a steep fall in prices chiefly due to the rise in value of the pound sterling. Costs have not adjusted themselves, and for a time farming has been in difficulties. Now the nominal gross rents of agricultural land, raised by perhaps 15 per cent. in 1919, at the present time on the average are probably only 5 to 10 per cent. above pre-war figures, while the high cost of repairs makes the net rents considerably below those of 1914. As the value of money is less by perhaps 40 per cent., it is clear that real rents are much less than before the War. In effect, the landowner is carrying the industry through its bad time by taking less real rent, thus enabling the farmer to survive and the labourer to

receive his present wage, which, although less than he deserves and less than is paid in "sheltered" industries, is still higher than in past times, and in all the other countries of Europe.[1]

To act thus as a buffer to absorb economic shocks is one of the functions of the landowner. The fact that he is performing this function explains why agriculture, with all its troubles, is in far less parlous state than are some other "unsheltered" industries. As Mr. Venn's investigations show, before the last rise in the value of the pound and in the rates of minimum wages renewed the depression, even in East Anglia with these low rents farming was beginning to pay.[2]

When the process of readjustment is finished, either by a rise in world-prices or a reduction of wages and other costs in our sheltered industries, real rents will again bear something like their old ratio to outgoings. The landowner will then once more be able to maintain the fixed capital of agriculture without the present ruinous strain on his resources. To expropriate him just now, when, willingly or unwillingly, he is accepting an abnormally low rent, and to pay him compensation on that basis, is most clearly unfair.

Of course the nation has a right to buy out the owners on equitable terms if Parliament decides to take over any kind of property. Some landowners would welcome such relief from their present difficulties. But the Liberal proposals are unjust. The landowner is to receive an annuity based not on the estimated selling value of his land (on which basis, by the way, the nation has exacted one, two or three payments of death duties), but on his present net receipts in a time of depression, and after his rental has been reduced by an amount which will enable his tenants to pay a new minimum wage to be specially fixed with this scheme in view--how fixed is not made clear.

Now the Report gives examples to show how disastrously landowners' net receipts have been reduced in late years by the increase in the relative cost of repairs, etc., and, conveniently forgetting for the moment its provision about a new minimum wage, it assures the landowner that he will get as much net income as he does now. It states that agriculture is injured by what it calls "unreal" values due to monopoly, amenity, prestige, and facilities for breeding or preserving game, though, as it is admitted that rents are fixed on bare agricultural values, the statement does not carry conviction. It is proposed to

[1] *Agricultural Tribunal Final Report*, p. 35, Cmd. 2145, 1924.

[2] *Farm Economics Branch, Cambridge School of Agriculture*, Reports 1 and 2.

"relieve" the land of all these "unreal" values, which explain the difference between the agricultural and the selling price of rural land. The owner will be paid for the "real" or agricultural value only. This calm proposal, to destroy by a stroke of the pen wealth to the value of untold millions without compensation to its owners, suggests the compulsory purchase of a picture by the National Gallery on the basis of an estimate of the cost of the paint and a fair allowance (doubtless at Trade Union rates) for the man's time in laying it on.

To talk about "monopoly" is, of course, ridiculous. Mr. Lloyd George and the editor of the Liberal Land Report can buy as much agricultural land as they want to-morrow, and buy some of it for less than the cost value of the buildings and other equipment. It still does not seem to be understood that the average rent of agricultural land in England is in reality a rent not for the land but for the equipment. To reclaim the land, fence, drain, and provide it with roads, would have meant from £5 to £10 an acre, and to put up buildings £8 to £10 more, even on the costs of fifty years ago:[1] £30 would be a modest total estimate at present prices. An average gross rent of (say) 25*s.* an acre, reduced by outgoings to something like 15*s.* to 18*s.*, gives as a maximum a bare 3 per cent. on the replacement value of the equipment with nothing for the land itself. It is only exceptionally fertile arable land or old pasture that has much natural agricultural value of its own.

But there is more in the question of amenity value than appears at first sight. It is really an important factor in past and present agricultural economics. Without it less capital than at present would be available: there are more profitable investments for both landowner and tenant, and land would really become under-capitalised. Farm buildings would not be maintained or replaced on their present high average level, and much more arable land would go down to grass. Because of the amenity value of their estates, landowners have been willing to purchase them, to maintain and improve the houses, cottages, farm buildings and other equipment of the land, and have been content with a very small interest on their money, not merely on the purchase price, as the Report allows, but on that expended afterwards and continually in improvements.

In regions of rich soil, such as some parts of the Fens,

[1] "The Making of the Land in England," Albert Pell, *Journal of the Royal Agricultural Society*, 1887, 2nd Series, Vol. XXIII. p. 355, and 1899, 3rd Series, Vol. X. p. 136.

agriculture can succeed without amenity value, but poor land, such as much East Anglian clay, goes out of cultivation in bad times sooner in those regions where amenity values are low. Moreover, it is generally admitted that cottages and other buildings are better on the larger estates, that is, where amenity values are high; it is the small man who usually lets them get out of repair.

Amenity value is a real asset to the private landowner, and he is prepared to pay for it by providing and maintaining the fixed capital of the land below the market rate of interest—whereby agriculture gains. On the other hand, amenity has no value to a County Agricultural Authority. Hence arises a dilemma which appears in all schemes for nationalising agricultural land. Either amenity value must be destroyed, which is unjust to its owners and tends to injure agriculture and reduce national wealth, or else, by paying for it, the nation is saddled with a scheme even more unsound financially than that of the Liberal Land Report. Personally, if we are to have nationalisation, I think part of the amenity value might fairly be charged to the cultivating tenant, who will, at all events, retain some of its elements. But he would then be little better off than if he bought his farm now from his landlord: his dislike to the scheme would be intensified.

Many Liberals opposed the scheme as first drafted, and it is now understood that a compromise has been arranged, whereby it is to be brought into force gradually. The new machinery is to be created and farms brought under it as changes in tenancy occur. This modification has some obvious advantages, but in other ways makes the scheme worse. The loss of a farm in the middle of an estate might depreciate the value of the whole, and the delay would inevitably tend to starve the land of capital while the change was pending. The scheme, even as thus amended, has been severely criticised by Sir Alfred Mond,[1] and it still seems doubtful if it will be adopted by the Liberal Party as a whole.

Some provision is made in the scheme as set forth in the Report for recognising prospective building value in assessing the landowner's compensation, but one most important point is quite overlooked. Besides the "amenity" group of values, land has a real economic value beyond the figure got by capitalising the net rent. It is not, like fixed-interest bearing securities, at the mercy of a change in the value of money. Slowly rents

[1] *The Times*, January 7, 1926.

adjust themselves, and, till the disastrous discovery of death duties, landowning families, with economy in bad times, might hope to preserve their life of usefulness. It is this hope of permanency which for centuries has made men willing to work hard and save to establish their families on the land.

Who then is to gain by the Liberal Land Policy? On the face of things it ought to be the occupier. Yet I doubt if many tenant farmers, with a full understanding of the consequences, would accept the scheme. The "cultivating tenant" might find the County Agricultural Authority a troublesome landlord. He will pay to the Surveyor of Taxes the "fair net rent" used in calculating the landowner's annuity, but he will have to do his own repairs, and bear the full brunt of rising wages, and some day, perhaps, of falling prices. His only remedy seems to be to give up his tenancy or threaten to do so.

The labourer will possibly get a higher minimum wage at first, when it can be obtained at the expense of the landowner's annuity. But the farmers may soon find cause to have it lowered again, when faced with the cost of repairs and the claim of an unrelenting Surveyor of Taxes for fixed rents. I do not think that the labourer will gain in the long run by being left face to face with the farmer alone on the countryside. The landowners are now being supplanted on County Councils and other local bodies by farmers whose chief desire is to keep down the rates, and this tendency must inevitably be hastened by the Liberal Land Policy.[1] Already Labour orators are saying openly that the farmer is worse than the old Squire.[2]

Thus, as far as I can foresee the result, the broad economic effects of the Liberal Land Scheme would be: (1) the destruction of the amenity values in land, on which the cheap capitalisation of agriculture has depended in the past; and (2) the inauguration of an inefficient and financially unsound system of administration, which would leave all parties worse off than they are at present. The social effect would be to drive many landowning families away from the country, and the permanent establishment of the farmer class as the head of the village community.

But I would not be thought to hold that all is for the best in the best of all possible countrysides. Landlords are impoverished: some have sold; others are either reducing too much their expenditure on repairs, or, as an alternative, have had to let their houses and are unable for the time to live on their estates and look after

[1] See a letter from Mr. Henry Hobhouse, *The Times*, September 19, 1925.
[2] *Cambridge Daily News*, November 12, 1925

the people that dwell thereon. Arable farmers for three years lost on their trading accounts, and all farmers have had to write down their valuations. Labourers' wages, though higher than in other European countries, are still lower than one would wish; Wage Boards have in places caused a loss in allowances as against the gain in cash; cottages are often bad; too few men have possession of any land.

Now, of course all this is mainly the result of agricultural depression. Things will largely right themselves if and when there is a rise in prices or a fall in costs, including those in sheltered industries which at present bleed the farmer. But the whole rural problem involves other economic and social factors which can only be understood in the light of history. The Report wisely brings into review the development of our present country life from that of the mediæval manor, though it simplifies the story far too much. It forgets that the late survival of common arable fields characterised only the south and middle of England, and that parts of the north, the west, and the east were enclosed and farmed individually at a very early date. Change was going on throughout the Middle Ages; it is difficult to judge fairly the economic welfare of the serf or the villein or the copyholder at different periods, and those who know most seem nowadays least inclined to dogmatise. In spite of all that is said, one thing is certain—whatever was the peasant's position in the mediæval manor, the labourer's life is far better now than it was a hundred years ago and down through the "hungry forties." *E pur si muove.*

Nevertheless, no one can study the Court Rolls which concern a parish he knows without seeing that the slow decay of the manor, which finally died on New Year's Day, 1926, did unwittingly destroy the old social life of the village. The break was more sudden in open-field parishes, where enclosure, necessary as it was, produced evils unintended and unforeseen. But, even in early enclosed countries, there was a slow consolidation of holdings, involving perhaps no hardship to individuals, but still resulting in a decrease in the number of copyholds and small freeholds. And everywhere, as again the Report overlooks, there has been a gradual transfer of the other functions of the Manorial Courts to the more centralised jurisdiction of Assizes, Police Courts, Inland Revenue Offices, and County Councils. The manor, as a self-governing community, slowly passed away, and much of the natural social life of the village went with it.

By means of Football Clubs, Women's Institutes, and Rural

Community Councils, we are trying painfully to put something together again, but, with the real business of the village perforce excluded, no complete remedy is possible. No shadowy control by a County Agricultural Authority will supply the local knowledge and personal touch of the homager in a Manorial Court dealing with the affairs of his own parish, especially with the joint cultivation of common fields, in which his neighbour's strips lay unenclosed next his own: to elect representatives on a County Committee is a poor substitute.

How then are we to reach our object—the enrichment of the social life of the village and the replacement of the communal activities of the mediaeval manor, gone themselves beyond recall, with some modern substitute? Much has already been done. Among further possibilities I think the following are important. Firstly, an increase in the number of holdings, graduated in size; secondly, the organisation of large farms on a profit-sharing basis, as some few have been in the past; thirdly, the mutual support and intercourse that agricultural co-operative societies give; and fourthly, when possible, the establishment of industries other than agricultural in the country.

But all this can be done within the framework of the present system of tenure, and indeed done better than under the costly and inefficient Liberal Scheme. The great and cardinal error of our would-be land reformers is that they have not used the landowner instead of abusing him. There are bad landlords as there are bad farmers, but there are also many progressive and intelligent landowners with a high standard of public duty. Modify the Acts which, by increasing unduly the farmer's security of tenure, have, as the Liberal Report allows, injured agriculture; give the landowner official support in dealing with bad farmers, some encouragement to initiate changes when they are needed, and peace from threats of confiscation. A well-considered scheme of rural reform can then be carried through by his help, more easily, swiftly and successfully than without him.

As long as costs remain relatively high, landowners will need subsidies for building, as Local Authorities do, but with this help towards the cost of houses and farm buildings, small holdings can be multiplied, where soil and markets give them a fair chance. The opposition comes, not from landowners, but from large farmers. I speak that I do know. On two small estates in the West of England I have created three cottage holdings, and cut two small farms out of large ones, thereby losing two

large farmers one who threatened to leave if I carried out my intention, and was taken at his word, and one because my small holder proved quite intolerable as a neighbour. Naturally, no tenant likes to have land taken away for other purposes, and some small holders are very troublesome in allowing their stock to stray in search of free meals. They are often a nuisance in this and other ways, but still must be encouraged for reasons of public policy.

County Councils already own much land—indeed in some counties, *e.g.* Cambridgeshire, the County Council is the largest landowner. Some of their small holdings have proved a heavy financial burden, but others are a success, and there is no reason why this form of tenure should not be multiplied. It has the advantage of lending itself to the development of colonies of small holdings, where adequate supervision, help and advice can most easily be arranged. When small holders will consent to co-operate, this may become important. At present, for the most part, they are as individualist as large farmers, and there is more hope for them when scattered on private estates, so that each man can find a retail market in his own neighbourhood.

Again, some farmers are willing to buy land, though usually only under pressure. The number of small owners may perhaps be increased, and to this possibility some of the Conservative Party seem to look for a complete solution of rural problems. I wish they were right, but I am almost sure that they will be disappointed. Without the restrictions of feudal times, small freeholds tend to disappear again. The English farmer does not want to buy land; he can use his capital more profitably by stocking it, and he likes to retain the power of moving to a larger or a smaller farm. What he really likes is to be tenant on a large estate, and, as the owner of a very small one, I quite see his point. The outcry about "security of tenure," to use plain words, is very largely nonsense. Landlords are generally quite willing to grant leases; it is the tenant who demands a yearly agreement. He knows he is most unlikely to be turned out, and he retains his own freedom. On a yearly agreement, it is heads he wins and tails his landlord loses. Anyhow, under the present law, he gets compensation on leaving for improvements he has made, and, if his landlord gives him notice, compensation for disturbance. He has too much security—not too little—and, good fellow though he usually is, he is sometimes inclined to take things easy in consequence.

I have no sorrow for the farmer's insecurity of tenure, though

all the Liberals in England weep sympathetic tears; as regards his landlord he can look after himself. But to improve the present lot and future prospects of the labourer should be a real object of our efforts. Of course, here again, there is much exaggeration. On good farms he is not as badly off as some folks like to think, and, on the whole, is in a better position than before the War. But it is often difficult for him to obtain land if he wants it; in the south of England there is seldom a graduated ladder of holdings up which he can climb.

Where soil and markets are favourable, such ladders should be multiplied, both by County Councils and by private landowners, for those exceptional men who have the will and the ability to use them. First there is the cottage with a garden. Even with the subsidy available for private enterprise it is now impossible to build and let rural cottages on an economic footing. Before the War this was just possible in favourable conditions, and on one small estate in Devonshire it had been done in connection with a scheme for letting as many cottages as possible direct to the occupier.[1] Tied cottages are a necessary evil, and should be reduced to the lowest convenient numbers. As costs come down, or more encouragement is given to the private builder, landowners may again be able to erect cottages. Meanwhile, they can give land to local authorities or sell it at low prices where cottages are needed. To those who refuse, compulsory powers may well be applied.

Next to the cottage and garden comes what I have called above the cottage holding, in which, personally, I have much faith. It varies in size according to the soil, from half an acre to perhaps five acres, and helps to support a jobbing labourer who works for neighbouring farmers or others when they need him, and fills in time on his own land. Then we have the present small holding, on which a hard worker can just make a living, though a sensible man supplements it by carting or other activities. The restriction of a statutory "small holding" to one of fifty acres should be removed. Economic inquiries, quoted in the Report and elsewhere, are bringing out the fact that the small farm which gives the largest net return per acre runs from 50 to 150 acres, according to soil and type of cultivation. This is the economic unit for one pair of horses, and represents the "family farm," which largely avoids labour troubles. It

[1] "Agricultural Labour and Rural Housing," W.C.D. and C. D. Whetham, *Edinburgh Review*, July 1913, Vol. 218, p. 42. *Rural Housing*, W. C. D. Whetham, Exeter Diocesan Conference, November 1913.

is a significant fact that holdings of this size are increasing in number at the expense of both smaller and larger ones.

Many landowners are willing to finance promising men to start them in small holdings on their own estates, or guarantee a loan for them from the bank. I have done so myself, and never lost thereby. Perhaps an extended system of public credit might be arranged for applicants for County Council holdings, but it is difficult for the Councils to select and supervise or grant public credit to men who wish to set up on private estates.

Profit-sharing schemes have been rather in abeyance since there have been no profits to share, but, when more normal times return, farming landowners are the most likely agriculturlaists to develop a system in which some of them were pioneers. Corn growing is best done on the large scale, and, in some parts of the country, especially in those unsuitable for small holdings, posts of increasing responsibility on large farms with a share of the profits should offer to competent men an alternative ladder to a graduated scale of holdings.

But, when all is said and done, the solution of our present agricultural difficulties is mainly an affair of prices and costs. The farmer, all unconscious of the underlying monetary causes, blames free trade for ills which present themselves to him in the guise of foreign competition. He has more to gain by stabilisation of the general price level than most men. This he can do nothing to secure. Again, he needs some assistance in his rather ineffectual struggles with dealers and middlemen. I have much sympathy with the idea that the farmer should be primarily an agriculturalist, and should somehow be relieved or relieve himself of the specialised work of marketing his produce. It is difficult to get him to co-operate for "orderly marketing" of the American or Danish type, but here, too, landowners have been useful in the past and, if appealed to and encouraged, might be useful in the future.

Both subsidies and protection must be ruled out of practical politics as far as established crops are concerned, but, to start new developments like the growing of sugar-beet, Government help is now accepted by nearly everyone as necessary and desirable.

For more modest measures of amelioration and reform, landowners already on the spot with local knowledge and a more detached outlook than ordinary farmers are the best agents through whom to work. I believe more might be done to improve

rural life by joint consultation and action of the Ministry of Agriculture and the Central Landowners' Association, working locally through landowners, than by all the democratic County Agricultural Authorities imagined by the Liberal Land Report.

But, with two of our three political parties now committed to the principle of land-nationalisation, it would be foolish to ignore the possibility of a coalition between them to carry through some definite scheme. I think the loss, both socially and economically, would exceed the gain. If, however, the nation should decide to take possession of the land, three conditions seem to me to be essential: firstly, adequate compensation on equitable terms for the owners; secondly, administration under the County Councils by competent professional land-agents, as in the scheme of Messrs. Orwin and Peel; and, thirdly, a sensible, straightforward system of tenancy, either on yearly agreements or leases for definite periods, whereby the nation, which will have to bear much of the loss in bad years, may recover some of it when times are good. With the ever-widening residential areas round towns, I think the State, by establishing for the first time a real monopoly in land, might make complete expropriation pay its way. But, if so, I feel sure that the profit will be made on building and other urban values, and not on national dealings with agricultural land.

C. DAMPIER WHETHAM

THE PROFIT CYCLE IN AGRICULTURE

SOME NOTES ON FACTORS WHICH AFFECT ITS INTENSITY

I. Characteristics of Agricultural Industries

In order to understand the effects of the so-called "trade cycle" on agricultural industries it is necessary to bear in mind certain essential characteristics which differentiate agriculture from "industry."[1] These will be stated in summary fashion without any prolonged discussion.

1. In general the supply in use of the agents of production in agriculture, and therefore the supply of the sum-total of agricultural commodities, is less elastic than in industry. The supply of land in use for agricultural purposes especially does not vary so readily in response to changes in the demand for its products as does the supply of the other agents, or the supply of land for industrial purposes. In general an increased supply of land takes the form of new investments in material resources in the nature of roads or railways, the drainage of swamps, irrigation works, the clearing of forests, and so on. The heavy investment of capital involved, and the length of time which usually must elapse before such lands are brought into full bearing, cause a considerable inertia, which must be overcome before conditions of boom result in any marked increase in agricultural output from this cause. Any increase is likely to be delayed, and may only realise its full effects when reaction has set in.

Conversely, the losses attendant on abandonment or incomplete use are so very great as very much to reduce the temptation to such a course, when the anticipations on which the increase is based are proved to be incorrect.

2. The same conditions apply in large measure to the investment of capital by individual agriculturists, as well as to the more communal forms. Although some increase in output may be effected through improvements, the increased use of fertilisers, the purchase of high-quality stock, and so on, the operation of the law of diminishing returns imposes an early and definite limitation on such a policy. Although the supply of material capital of the above sorts is potentially more elastic than the supply of land, especially than the supply of land on farms already in existence, the effect of diminishing returns is to make the

[1] By "industry" will be meant the extractive and manufacturing industries.

demand for such capital inelastic. Land, as the agent in short supply, becomes the limiting factor making difficult the profitable increase in the use of the agents in more elastic supply. If, however, the supply of the more fixed and permanent forms in the shape of drains, fences and outbuildings is augmented, it does not greatly require the use of extra labour to keep it in repair, especially as this sort of work can be done during intervals between agricultural processes. The incentive to leave capital idle during periods of reduced demand is therefore less than in manufacture or mining. The net result of these conditions is a considerable inelasticity in the supply of agricultural commodities taken as a whole.

There is the further consideration that even though the use of fertilisers is reduced, or improvements are neglected, any decline in production from this cause is gradual and not apparent for some time.

3. On the whole, the ratio of investment in the more permanent forms of capital, such as land, buildings and improvements to investment in machinery and more fluid forms of capital, is probably higher than in industry. Machinery plays a smaller part owing to the small size of the productive unit, the varied and non-specialised nature of production,[1] and the seasonal nature of its use. So, taking land, buildings, improvements, plant, machinery, live-stock, seed, fertilisers, etc. as a whole, the supply of these agents is undoubtedly less elastic than the supply of the agents used in industry.

4. Inelasticity of agricultural output is accentuated by the nature of the labour supply. The great bulk of the labour is family labour.[2] The farmer has therefore little incentive to curtail production by dismissing labour when the price of his products falls. Indeed he is more likely to increase the intensity

[1] In Great Britain this characteristic is less marked, and there appears to be a strong tendency towards productive specialisation. The same applies to many capitalistic ranches and stations. Taking the world as a whole, however, the representative farm produces more than one crop.

[2] Again, it is necessary to introduce a qualification in respect of Great Britain, where hired labour is more important in the rural economy than in most young countries, or in the greater part of Western Europe. Nevertheless, since agricultural labour is highly skilled, the supply is less elastic than in industry, even in Great Britain. There is the further consideration that during certain parts of the year certain processes must go on even in bad times. The *demand* for labour for these processes is therefore inelastic. This tends to increase the inelasticity of supply for other processes, both because it tends to reduce the reserve of marginal workers,—except unskilled or semi-skilled labour for harvest and similar periods,—and because the supply of labour to meet the inelastic part of the demand can only be obtained through providing some other employment in addition.

of his own efforts. For the same reason it is difficult to augment the supply of labour when prices rise. The reserve of labour is less than in industry, except perhaps in some districts during harvest.

5. The economic lag in production, *i.e.* the length of time incurred from the commencement of production to when the crop is marketed, is greater than in industry. This delays the response to a given change in demand, and lends an added element of uncertainty as to conditions when crops will be marketed. This factor therefore increases the inertia of production.

6. Agriculture is organised into a large number of small-scale productive units, very loosely integrated, and separated by a long line of transporters, manufacturers and middlemen from the ultimate consumer. With some notable exceptions, anarchy in agricultural production is paralleled by chaos in the organisation of marketing. Not only do these factors, together with the influence of the weather on crop yields, make it difficult to control output, but also they increase risks.

7. Largely as a result of the factors described, it is difficult to create a credit machine which is both safe and resilient. Much credit is of a personal nature, and is apt to become " frozen " during times of depression. The length of the processes for which credit is required, unforeseen elements of change dependent on physical phenomena, and the difficulty of estimating the value of the security offered, lend added elements of risk which discourage advances except when a considerable increase in profit margins causes the face value of the security to appreciate greatly. The tendency is, therefore, for a delayed response to the increased demand for credit during the early stages of boom, to be followed by a rapid increase when reaction is imminent.

On the whole the above conditions imply a considerable intractability of production in agriculture as compared with industry. Although *some* variation in total output may occur, this will be much less than in manufacturing or mining.[1] The intractability of production *downwards* is probably greater than the intractability *upwards*, and increases tend to be permanent.

[1] During the post-war boom in the United States, the maximum increase in the volume of farm commodities over the average figures for 1911–13 was 16 per cent. The output of mines increased 32 per cent., manufactured farm products 26 per cent., manufactured mineral products 48 per cent. The marked annual fluctuations in agricultural output suggest that the influence of the weather was important, and that the increase due to the trade cycle was much less than the percentage quoted. The maximum increase of the three-year moving average was only 9 per cent. for farm products, as against 29 per cent. for the products of mines, 46 per cent. for mineral manufactures, 21 per cent. for manufactured farm products, and 34 per cent. for all manufactured goods. See *The Agricultural Crisis and its Causes*, 67th Congress, 1st Session, Report No. 408, Part I Table C–5, p. 47.

The possibility of varying the expenditure of productive resources on a given crop is usually much greater than the possibility of variation on crops as a whole; but such variation as occurs is likely to be delayed, and on balance accentuates the effects of the cycle on farm profits.[1]

For these reasons, I consider that the trade cycle in agriculture is mainly a cycle in profits rather than a cycle in output. It is proposed, therefore, to concentrate on the factors other than variation in output which affect the margin between cost of production and selling price as being the main elements in profit variations during the trade cycle.[2]

II. The Profit Cycle in Agriculture

1. *Factors affecting Costs.*—It is convenient first to consider factors affecting cost of production.

Unless we accept the crop cycle theory of the trade cycle, we may take it that the incentive to the profit cycle in agriculture comes from outside, in the form of an increased demand for agricultural commodities followed by a reaction during which demand drops. This view is supported by the fact that agricultural prices usually rise before manufactured consumers' goods during conditions of boom, and fall before them during depression.[3]

[1] The delayed response to changes in demand is shown by the export volumes of farm products from New Zealand during the post-war boom. The maximum export of wool occurred in 1922, butter in 1923, cheese in 1921, in each case some time after reaction had set in. See *N.Z. Official Year Book*, 1925, pp. 296–301.

Because of the comparatively small variation in agricultural output, some writers appear to believe that the trade cycle in agriculture is not serious. "The effects on production as a whole," says Hawtrey, "will be those which have been described, but will be very unevenly distributed among the several industries. Agriculture, for example, will be hardly touched. The stock of cereals are not subject to immediate variation, since they are replenished by the natural growth of the crops. The market for meat is no doubt affected, both because the supply is subject to more direct control, and because the demand for meat is more elastic than the demand for bread. But nevertheless, for agriculture, trade depressions are hardly a matter of urgent practical moment."—*Good and Bad Trade*, p. 205. It is one thing to show that variation in the volume of production is small, and quite another to assume that the problem is therefore not urgent.

[2] The increase in agricultural output in the United States, 1909–19, was due largely to an increase in acreage, and only slightly to an increase in output per acre. See *The Agricultural Crisis and its Causes*, p. 14. Variation in profits on farm businesses were due almost entirely, therefore, to conditions to be described. It is believed that this is generally true. (*Note.*—A change in the direction of production within the industry from one crop to another tells us nothing about the change in the total of plant and animal "units," and in the absence of any knowledge on this point it is legitimate to consider any increase in gross farm returns on this score as of the same nature as an increase dependent on increased price, operating on an unchanged output of plant and animal units.)

[3] See Mitchell, *Business Cycles*, pp. 99–102. If the crop cycle theory of the trade cycle were true, and periods of industrial boom depended on high crop

We shall, therefore, assume a cycle of rising and falling prices for agricultural products dependent primarily on changes in conditions of demand.

A rise in agricultural prices is accompanied by a lagging rise in cost of production dependent upon two factors, (A) the economic lag in production, (B) the lagging rise in "instantaneous" costs.[1]

(A) *The Economic Lag.*—The economic lag has been defined as the period during which production costs are incurred before a crop is marketed. We must modify our definition to allow for variation in productive expenditure through time. "If a farmer's costs were spread evenly over the farming year, from an autumn sowing to harvest, and the produce were sold at the following Christmas, the costs would begin at fifteen and end at three months before sale—an average lag of nine months."[2] In practice, the outlay occurs at irregular intervals, so that to find the real significance of the economic lag, the various items of expenditure must be weighted by the time elapsing from when the cost is incurred to when the crop is marketed. Whetham finds the weighted economic lag by multiplying the average number of months before sale of each item of expenditure into the fraction which it bears to the whole cost of production of the crop. The sum of the weighted lags gives the economic lag for each crop. The term economic lag is used in this sense. It follows that the economic lag will be greater, the longer the average number of "production months" before sale, and the heavier the expenditure in the items for which this average is high.

The economic lag in agriculture is often very long, much more so than in the majority of manufacturing industries. This is due, first to the long gestation period of many crops, second to the length of time in preparation for them. In the production of wheat, for example, the economic lag includes costs in preparing the seed bed—some of which may go back several seasons owing to manurial residue, etc.—as well as in the care and the harvesting of the growing crop. It follows, therefore, that the longer these costs are incurred before sowing, and the longer the period of growth, the longer the economic lag. The importance

yields, we should expect agricultural prices to fall before a period of industrial expansion, and rise before a period of contraction. The yield of crops does, of course, have some influence on he course of the cycle.

[1] By "instantaneous" costs is meant costs from which the time element is eliminated; that is, it is assumed that production is instantaneous and goods are sold immediately.

[2] "The Economic Lag of Agriculture," C. D. Whetham, ECONOMIC JOURNAL, December 1925, p. 537.

of these factors may be realised when it is remembered that it takes upwards of two years to prepare a beef animal for the market, while such crops as coffee do not come into bearing for some five years after planting, and some fruits may take ten or more years before they are in full bearing.

The economic lag is important: first, because costs are incurred at one level of prices while the crop is marketed months or even years hence, when prices have altered. This increases the profit margin during rising prices and decreases it during falling prices. Second, because it increases the inelasticity of conditions of supply for reasons given above. The rise in price consequent on a given increase in demand is likely to be greater, therefore, the greater the economic lag. This is one factor making for a more rapid and greater increase in agricultural prices than in the price of manufactured consumers' goods during a period of boom, and so is a secondary influence making for a rise in agricultural profit margins.

(B) *The Lag in Instantaneous Costs.*

(a) *Importance of the Lag in Instantaneous Costs.*—Even if instantaneous costs and selling prices moved exactly parallel, or the cost of production bore a constant relation to the selling price, the fact of the economic lag in production would ensure something of a windfall gain or loss to the producer; but in fact they do not. There is a strong tendency for instantaneous costs to lag behind selling prices, especially in the early stages of boom.

The combined effect of the economic lag and the lag in instantaneous costs is a considerable conjuncture gain to agricultural producers during rising prices, and a loss during falling prices, dependent on a wide variation in profit margins operating on a basis of agricultural output which is fairly stable apart from variations due to physical causes. In most cases there is reason to believe that this represents not merely a change in the total of money profits, but also a considerable change in the purchasing power of agricultural producers.[1]

(b) *The Distribution of Expenditure. Factors affecting the Lag in Costs.—As far as the individual farmer is concerned*, the main items of expenditure may be roughly classified as follows:

[1] On this point see *The Agricultural Crisis and its Causes* (U.S.), Part I, pp. 27, 51, 54 (various Tables). After an examination of these figures, the writer is of the opinion that they provide an approximate but *conservative* index of changes in the purchasing power of agricultural producers during the years 1909–21. Estimates of the increase in purchasing power of agricultural net income over the year 1913 vary from 17 per cent. to 90 per cent. according to the figures used.

(1) Rent of land in the case of a tenant, or interest on capital invested in land (or improvements) in the case of a farming owner. (2) Interest on capital invested other than in land, *i.e.* in stock, implements, etc. (3) Depreciation on these, or the replacement of such capital of this sort as is worn out. (4) Labour. (5) " Incidental " expenses in the nature of seeds, feed-stuffs, fertilisers and so on.

The relevance of these items of expenditure to our subject consists in the length of time which passes before a new level of charges in respect of them must be incurred, together with the degree of interim change in this level. In other words, it depends on the length of time during which these charges remain fixed. From this point of view the above expenses are arranged approximately in descending order of fixity.

As regards the first item there is a difference in degree, but not in kind, between tenantry and farming ownership. If the farmer is a tenant, the agricultural rent he pays is compounded of economic rent proper plus interest invested in immovable forms of property. If he is a farming owner, the interest he pays (or should allow if his own capital is invested) is compounded of the same items. Although these charges for tenantry and ownership do not exactly coincide,[1] the main difference from our point of view is in the length of the contractual charges in the two forms of tenure. In both cases the charges to be levied against income are fixed for a period; but the length of the period is, in general, greater under ownership. The outgoings under rent or interest will not usually be adjusted until the existing rent contracts expire, or the land is transferred, though mortgages may have to be renewed at a higher or lower rate of interest between one transfer and the next. The burden of mortgage or rent charges is therefore steadily falling as prices rise, and can be provided against by the sale of a smaller quantity of produce. Conversely, when prices are falling, the burden of these charges is increased.

The same applies in regard to such agents as stock or implements. It is legitimate to allow against these, interest on the capital invested and some provision against replacement. The period during which the former charge is fixed depends mainly on the length of useful life of the instruments. During this period they will enjoy a quasi-rent when prices are rising in the

[1] For an excellent account of the causes of the disparity between the two, see *The Relation of Land Income to Land Value*, C. R. Chambers, U.S. Dept. Agric., Bull. No. 1224, *passim*.

same way as investment in land and improvements. When prices are falling, the burden of charges against them will rise in terms of purchasing power. If we take the effective life of the instruments as ten years, we may conveniently assume that one-tenth of the instruments will be replaced annually, but the remaining nine-tenths will enjoy a quasi-rent during rising prices in greater or less degree, according to the time at which the instruments were bought or reared. There is the presumption that the effects of the fixed interest charges will outweigh the effects of charges against replacement.

As regards incidental expenses of various sorts, the issue is not clear; but since, in general, agricultural prices rise and fall more rapidly and to a greater degree than the price of finished goods, and since some portion of the expenses will be involved in the purchase of non-agricultural goods, there is the possibility of some slight differential gain during rising prices and loss during falling prices. On the other hand, goods of this sort of *agricultural* origin may rise and fall in price more than the price of the finished farm product. Hay may rise in price more than butter or beef. Evidence is not sufficiently clear to generalise with safety, and effects will vary considerably on different farms and in respect of different types of farming.

Hired labour costs would in most cases rise more slowly during a period of boom than agricultural prices, at any rate during the earlier periods, but would fall more slowly when reaction set in. Nevertheless, the rise would be more rapid than the rise of other costs, except, perhaps, incidental expenses. On hired labour, as well as on the labour of himself and family, the farmer would enjoy some differential gain, at any rate during the early stages of a period of boom; but since, except in the United Kingdom, the great bulk of the labour supplied is family labour, the effect of the period of boom is very much to increase the net income of agriculturists, even when all allowances are made in respect of rent, interest, depreciation and incidental expenses. This net increase is compounded of an increase in labour returns (compared with the current rate of wages), together with expenses of management and a quasi-rent on the items we have considered, such as land, stock and farm implements.

The theoretical and practical allotment of the gains to the various agents would be difficult and need not concern us. It is sufficient to indicate that, on *a priori* grounds, we should expect a high increase in the net income of agriculturists—call it profit, or labour income, or what you will—during rising prices, and a

marked fall during falling prices. We should expect this variation to be greater, (*a*) the greater the variation in prices, (*b*) the greater the economic lag, (*c*) the longer the period over which costs such as agricultural rent and interest are stable, (*d*) the longer the life of the instruments requiring replacement, (*e*) the greater the proportion of total expenditure attributable to (*c*) and (*d*), and the less the proportion attributable to incidental expenses and hired labour.[1] The continuity of the rise and fall of the various curves of costs will be greater as the degree of fixity becomes less; that is, the rise or fall in the costs attributable to land will be sharp and infrequent, that attributable to incidental costs will be steady and continuous.

As an indication of the broad effects of the trade cycle on agricultural income, the following tables are instructive, though they are not sufficiently explicit to admit of any very detailed conclusions. For convenience, actual figures have been computed into an index with the first year as base, except in the case of labour income (Table I), for which actual figures are given.

TABLE I

Summary of the Farm Business on Thirty-eight Owner-Operator Farms in the United States, 1917–21

(Base, figures for 1917 = 100)

	Index.				
Year.	1917	1918	1919	1920	1921
Total Receipts	100	227	285	378	190
Total Expenses	100	147	200	262	244
Net Farm Income	100	308	375	500	136
Ratio $\frac{\text{Farm Income}}{\text{Total Receipts}}$ . . .	100	180	132	132	71
Labour Income in Dollars .	−383	3757	4249	5835	−2158

(After U.S. Dept. Agric. Bureau of Agric. Econ. *Preliminary Report on Incomes and Profits of* 100 *Fruit Farms, Polk Country, Florida*, by W. C. Funk.)

An examination of Table I shows that all figures with the exception of the ratio of farm income to total receipts rise until 1920 (the peak of the boom), then fall. The rise is more rapid and greater for gross receipts than for total expenses, as also is the fall after 1920, with the result that the percentage rise and fall of net income is also greater. The ratio of farm income to

[1] An examination of Charts IV–XIII, Enfield, *The Agricultural Crisis*, substantially bears out our conclusions in respect of Great Britain.

TABLE II

Summary of Farm Business on 2195 Danish Farms, 1917–18 to 1922–23

(Base, figures for 1917–18 = 100)

	Index.					
Year.	1917–18	1918–19	1919–20	1920–21	1921–22	1922–23
Gross Returns . .	100	122	146	169	119	124
Gross Expenses . .	100	113	154	197	165	150
Net Returns . . .	100	141	129	108	15	68
Ratio $\frac{\text{Net Returns}}{\text{Gross Returns}}$.	100	118	89	64	13	55

(After "Agricultural Book-keeping in Denmark," by E. Thomas, in *The Scottish Journal of Agriculture*, Vol. VII, No. 4, October 1924.)

total receipts rises in 1918, but falls thereafter. It is unfortunate that the data do not go back beyond 1917, but apart from such influences as the weather, it seems probable that the movement is of the same sort in the years immediately preceding. The figures indicate that while net income rises more sharply than gross income up to 1918, owing to the economic lag and the lag in instantaneous costs, costs begin to catch up after that date. The level of costs begins to rise more rapidly than the level of selling prices some time before reaction in prices sets in. The lag in the earlier years is such, however, that the total percentage rise in expenses is less than the total percentage rise in gross receipts, so that during the whole period of rising receipts, the combined lags bring a conjuncture gain to the agriculturist over the gain at the beginning of the period. This is shown by the movement of labour income, obtained by subtracting from the farm income, interest on capital at 8 per cent. In 1917 labour income is negative, becomes positive in 1918, increases till 1920, then falls so sharply as to become negative again. That is, if all capital represented by the value of land, trees, etc., were borrowed, farmers would be earning a minus income in 1917 and again in 1921.

Conclusions from the above are perhaps vitiated somewhat by varying yields during the period; but the figures from Denmark lead to the same results, except that the percentage rise in the curve of total expenses is greater than the rise in the curve of gross receipts, and expenses eat up receipts almost completely. This is in part due to the smaller percentage rise in gross returns: but if we may venture to generalise without the use of precise

data, we may conclude that the smaller rise in net income than in Table I, and the earlier reaction, are due in large measure to the fact that the economic lag is shorter, and that expenses which we have called "incidental," especially purchased feed-stuffs, bear a higher ratio to total expenses of production, thus supporting our general conclusions.[1] The fall in net income, therefore, begins earlier, while gross receipts are still rising, and the percentage rise in net income during 1917–18 is also less.

These figures are descriptive of the post-war cycle over a limited field; but it is believed that they represent general types of curves describing the normal course of the trade cycle, differences being only in degree.

(c) *Land Values and the Trade Cycle in Agriculture.*—One of the most significant factors affecting the course of the profit cycle in agriculture is the movement of land values, particularly if the general cycle on which the cycle in agriculture depends is prolonged or intense. A brief statement of the conditions affecting land values is important.

Under static conditions the value of land at any given time would be its capitalised rental at that time, at current rates of interest. That is to say, if a farm could be let at £10 per acre per year, as a productive agent, and the rate of interest were 5 per cent., then the value of the land would be £200 per acre. The real underlying condition determining the net rent is the prospective farmer's estimate of his capacity to earn a certain minimum net income from the land under existing conditions of production. From his point of view, therefore, rent is the residual after deducting the desired minimum net income, plus costs of production other than those involved in payment for the use of the land, from the gross income.[2] Under static conditions the problem of land values would not be acute, since they would settle down to a level that would ensure that fictitious person, the average farmer, with the average desired minimum net income. In actual fact, of course, conditions are not static but changing, and the value of land is determined by (*a*) the rate of interest on farm mortgages, (*b*) the farm rental of the land at

[1] Enfield (*op. cit.*, Charts IV, VIII, X and XII) substantiates this view. The cost of feed-stuffs and fertilisers in the United Kingdom rises more rapidly than labour, horse maintenance, rural rates and railway transport, and in some cases than the price of the agricultural commodity.

[2] It is not suggested that each farmer enters into elaborate calculations as to what he can earn from the land, but simply that under static conditions, communal experience would cause land values to closely approximate to the level at which this desired minimum net income could be earned under representative conditions.

the time as determined by its value as an agent of production, (c) anticipated increases or decreases in the net income of agriculturists.

Buyers and sellers arrive at future changes in the farm rent of land by projecting increases or decreases during immediately preceding years into the future. If rent contracts are adjusted with sufficient frequency, then the cash rental approximates very closely under commercial conditions to the real productive value of the land. That is, it is such as will, on the average, ensure the desired minimum net income to agriculturists. Under these conditions, land values diverge upwards or downwards from capitalised rents, according as anticipations are upwards or downwards. In the same way, cash rents paid under long contracts would diverge from cash rents frequently adjusted to changed conditions. As long as anticipations are correct, any present loss due to a divergence of land values from capitalised cash rents would be made up in the future; but it is not likely that they will be correct, first, because the past, as agriculturists interpret it, is not a reliable guide to the future; second, because anticipations in a given direction are likely to be affected by mass psychology.[1]

During the early stages of the cycle in agriculture, experiences of the past few years cause under-anticipations of the future rise in farm rents, so that the buyer of land enjoys a conjuncture gain as prices rise. As prices continue to rise, and profit margins begin to increase owing to the causes enumerated, anticipations are increased, and the rise in land values becomes more rapid. Cash rents rise also, but more closely in accord with the rise in agricultural net income. Towards the end of the boom the rise in land values is sharp, and may continue even after prices begin to fall. During reaction, land values fall; but again anticipations are based on the experiences of the years immediately preceding, so that the fall is somewhat less than the fall in net income. If we isolate the effects of changing land values on farms which are transferred, and assume that transfers are continuous, then the movement of land values is such as to retain a quasi-rent to the agriculturist in the early stages of boom, which is eaten up as the boom proceeds, to be changed to a loss at a certain point.

This is illustrated below in Table III, referring to conditions in the United States.

[1] See Chambers, *op. cit.*, *passim*, for an account of the problems discussed in the above paragraphs.

TABLE III

Index Number of Farm Prices (Crops and Live-stock) and of Land Values in the United States, 1913–23

(Base, figures for 1913 = 100)

Year.	Agricultural (Farm) Prices.			Land Values.	Per cent. Ratio Prices to Land Values.
	Crop.	Live-stock.	Combined.		
1913	100	100	100	100	100
1914	108	103	105	105	100
1915	110	95	103	105	98
1916	124	111	118	111	106
1917	208	164	186	121	154
1918	224	192	208	132	158
1919	234	198	216	144	150
1920	238	168	203	173	117
1921	109	107	108	161	67
1922	113	111	112	140	80
1923	136	103	120	132	91

(Figures of Farm Prices are taken from the *Statistical Abstract of the United States*, 1923, p. 574. Figures of Land Values are from a Mimeographed form kindly supplied by the Division of Crop and Labour Estimates, U.S. Dept. Agric. The actual figures of Land Values have been calculated into an index-number with figures for 1913 as base. The combined index of prices is unweighted as between crops and live-stock, but these latter indices are themselves weighted.)

The figures show that prices begin to fall in 1919 in the case of live-stock, and in the following year in the case of crops. The most rapid rise in the curve of land values comes after 1919, when prices are just about to fall or have already begun. The significant figures are those showing the ratio of prices to land values. This ratio bears out the general contention made above. Prices rise more rapidly up to 1918. If our assumption is correct, that the lag in costs is also greater in the earlier years of boom, net agricultural income will rise still more rapidly. But the increasing anticipations of future income cause the *rate* of increase in land values to become greater, so that after 1918 the rise in land values is greater than that in prices. Experiences of the two or three years preceding 1920 again cause the fall in land values to be less, but they continue to fall after prices have again turned, so that after 1921 the ratio of prices to land values again rises.

In this case also the effects of the war must be allowed for in intensifying the cycle, and possibly exaggerating the degree of pessimism in anticipations of future rises in net income during earlier years. It is believed, however, that the figures approximately describe the relation of land values to prices during the course of a normal cycle.

The seriousness of the effects of the rise in land values on the prosperity of individual farmers during the cycle depends upon the time at which they took up their holdings and the degree of over-optimism in their estimates of the future trend of net income. Those who hold land during the whole course of the cycle will experience a marked variation in net income, but provided they have not incurred too many fresh liabilities the effects of reaction will not be disastrous. Those who have bought land in the later stages of boom will incur heavy losses, and if their equity is small they will probably fail. The effects on the agricultural community as a whole will depend on the number of transfers of land during the later stages of the upward movement.

It is an observed fact that land values do not rise to the same extent in all localities, or in regions devoted to different crops. Other things being equal, the rise will be greater, (*a*) the greater the rise in the price of the product and the greater the lag in costs; in other words, the greater the rise in net income; (*b*) the smaller the rise in the rate of interest on farm mortgages, and the greater the ease with which credit can be obtained; (*c*) the fewer the customary or legal restrictions on land transfer; (*d*) largely dependent on these factors, the degree of speculative activity in land. During the existence of a given mortgage contract, the change in the rate of interest does not greatly matter, since, although it affects land values, it does not affect the sum-total of interest payment in respect of land. It does matter, however, when a mortgage has to be renewed at a new rate of interest.

It is not proposed to discuss in any detail the above factors as they affect land values. It is sufficient to stress the fact that they do induce marked variations in the degree of rise during the course of the cycle. In the United Kingdom the rise in land values was probably not more than 20 per cent. during the post-war cycle. In the United States the rise seems to have been over 70 per cent. In New Zealand it varied from 50 per cent. in some districts to probably 150 per cent. in others. The disparity appears to be due to the fact that in the former country the pre-war values were on a basis that was partly social, and land values were higher than their productive value, credit was not obtained on such easy terms, and land transfers were not so frequent. In the United States, and certainly in New Zealand, credit was easy to obtain, at any rate during the later stages of boom, the activities of speculative dealers were marked, and land transfers were easy and frequent. It is probable also that, for

reasons to be described, the rise in the net income of agriculturists was greater in the latter countries.

Very largely as the result of these influences, the post-war cycle was much more acute in these and other young countries than in the United Kingdom.

2. *The Movement of Prices.*

(a) *Market Value and Value at the Farm.*—So far we have been concerned with factors affecting costs. There remains to consider the more important factors affecting selling prices. It is first necessary to consider the relationship between the gross value of crops at the market and their farm value.

The difference between the two is made up of charges for transport and marketing. During the course of the cycle this margin is influenced by the lag in the cost of the services of transporting, assembling, grading, storing, selling and so on. If the charges are paid by the producer, this lag affects the farm value of crops directly, and causes it to rise somewhat more rapidly than the gross market value. If the product is bought directly on the farm, the costs are met by the various marketing agencies; but during conditions of boom the stronger bargaining position is in the hands of sellers, and the competition of marketing agencies among themselves will cause some portion at least of the gain from lagging costs to be passed on to producers, but probably not all of it. There is also to be remembered that middlemen purchasing for future sale will be tempted to increase stocks in anticipation of a rise in selling price, or in fear of a rise in buying price, thus increasing demand.[1] Further, some time elapses during which the marketing processes are performed. If prices rise during the interval, the economic lag brings a gain to the marketing agencies. Some portion of this will be passed on to producers, so that these factors will also tend to cause farm prices to rise more rapidly than gross market value. It must be borne in mind that there are several " market " values between the initial productive stage and the ultimate consumer. We should expect the margin of differential gain to increase as we moved backward to the original producer.

During falling prices the processes would tend to be reversed, and farm values would fall more than market values.[2]

Space does not admit of detailed analysis, but we accept

[1] See F. W. Taussig, *Principles*, pp. 405-6.

[2] For evidence in support of the general principle that the value of produce at the farm rises and falls to a greater extent than gross value at the market, see Report of the Joint Commission of Agricultural Enquiry, Part IV, *Marketing and Distribution*, 67th Congress, 1st Session, Report No. 408, pp. 208—25.

the general conclusion that the above tendencies will be greater, (*a*) the longer the time taken in the various marketing processes, including transport; (*b*) the more elastic conditions of demand, *i.e.* the greater the variation in demand during the course of the cycle; (*c*) the greater the costs of marketing in proportion to the farm value; (*d*) the greater the proportion of total marketing costs which are supplementary.

We may illustrate with reference to the lag in transport costs during the post-war cycle. Table IV compares wheat freights by rail from Chicago to New York and the price of No. 2 red winter wheat in Chicago, 1913–23.

TABLE IV

Average Annual Railway Freight Rates per Bushel of Wheat from Chicago to New York, and average Annual price of No. 2 Red Winter Wheat, Chicago, 1913–23

Year.	Freights.	Price.	Year.	Freights.	Price.
	Cents per Bushel.	Dollars per Bushel.		Cents per Bushel.	Dollars per Bushel.
1913	9·6	0·88	1919	14·7	2·24
1914	9·6	1·08	1920	16·68	2·22
1915	10·08	1·13	1921	20·10	1·25
1916	10·08	1·68	1922	19·65	1·14
1917	10·08	2·25	1923	18·00	
1918	12·90	2·22			

(*Note.*—Freights are for the calendar year, prices for the year July to the following June. Figures are from the United States Stat. Abs., 1923, pp. 221 and 223.)

Wheat prices reached their maximum in 1917, and remained stable until 1920, then fell rapidly. Freights rose more gradually in the early stages, but the rise was more rapid after 1917, the maximum being reached after wheat prices had begun to fall. Agriculture as a whole was severely hit by high transport rates when reaction set in, not only in the United States, but also throughout the world in general.[1]

The effects of other marketing and distributive charges are very similar. When functions are performed at a flat rate

[1] On the effects in the United States, see *Agricultural Tribunal of Investigation*, Cmd. 2145, Appendix IX, pp. 345–46. See also (U.S.) President's Agricultural Conference, Release of January 14, 1925, and Report of the Joint Commission of Agricultural Enquiry, Part III., *Transport*, p. 10, and Chart A, 1. It is significant that complaints against high transport charges are a feature of every depression. See, for example, Venn, *Foundations of Agricultural Economics*, p. 267, and *Final Report of Her Majesty's Commissioners on Agricultural Depression*, published in 1898, c. 8540, p. 131 et seq.

irrespective of value, the differential gains and losses to the producer are greatest unless the rate is revised. When crops are sold on a commission basis, the ratio of costs to market value remains unchanged, but since we have shown that net income rises more rapidly than gross farm receipts, at any rate during the early stages of boom, marketing commissions will bear a falling ratio to net income when they can best be borne, and a rising ratio when farm costs are catching up on selling prices.

The method of marketing and the share of marketing functions borne by producers also affect the ratio of farm to market value. In the marketing of New Zealand dairy produce two methods are used. Either the co-operative factory sells the whole of the season's output in advance, at a fixed price, or it sells on consignment, the Tooley Street merchants acting as agents on a commission basis. Under the latter plan the whole of the differential gains, including the rise in value during the period of transport, goes to the producer, who takes over the risk. In the former, some portion of it may go to the producer, but not all. As a matter of principle, it will pay factories to sell on consignment during rising prices, but to dispose of their produce in advance during falling prices. In practice the difference in returns from the two methods has often been considerable.

(b) *Conditions affecting Variations in Market Price.*—A considerable amount of detailed study is necessary before we can arrive at any very satisfactory conclusions regarding the causes determining the course of prices of individual products. We must be content with certain broad generalisations.

There are two main factors to be considered: the variability of demand during the cycle, and the elasticity of supply. As a rough generalisation the price of commodities used as the raw materials of manufacture will rise and fall more than the price of those which do not. Producers' goods will vary more than consumers' goods.[1] That is, goods which go directly to the consumer with little or no change in their form utility will, in general, vary less in price than goods which suffer change. This is substantiated by a comparison of the curves of Sauerbeck's index-number of the wholesale prices of textile raw materials and of animal and vegetable food-stuffs, in which the former fluctuate much more violently. Similarly, a comparison of the export prices of wool from New

[1] See Mitchell, *Business Cycles*, pp. 461, 462, 562. "This superior stability of consumers' as compared with producers' demand is confined, however, to the demand for staples. Had we price data for consumers' luxuries, we should find them exhibiting average variations equal to or greater than those of staple producers' goods." *Ibid.*, p. 464.

Zealand with those of mutton or dairy produce shows that the first named fluctuates much more considerably about a general trend.[1] It does not follow, however, that the variation in agricultural net income will be greater in industries producing goods with wider price variation. The lag in costs and the divergence between market and farm values are additional factors affecting the profits' equation.

On *a priori* grounds also one would expect that, for a given increase in demand for the finished manufactured commodity using an agricultural raw material as a base, the rise in the price of the raw material would tend to be greater the greater the lag in manufacturing costs other than the cost of the raw material, and the smaller the proportion the cost of raw material bears to total cost. This is difficult to verify statistically.

The factor affecting price on the supply side would be the degree of rapidity with which the supply of a given agricultural commodity could be increased in response to a given increase in demand. This would depend on the elasticity of supply in use of productive agents, the degree of economic lag in the production of the crop, and the ratio of the increase in agricultural net income due to the production of the given crop to the increase in net income due to the production of crops which compete for the use of resources. This last factor would determine the intensity of the incentive to increased production, the two former would determine the rapidity with which potential productive capacity to be used in the production of the given crop became actual in terms of finished agricultural goods.

III. Summary of Conclusions. Economic Effects

(a) *Conclusions*.—The course of the trade cycle in agriculture has been illustrated with reference to the post-war cycle; but, the effects of the war and of price regulation notwithstanding, it bears out the general conclusions reached on *a priori* grounds in respect of the normal cycle.[2] We conclude that—

[1] See *N.Z. Official Year Book*, 1925, pp. 296–301. See also Warren and Pearson, *The Agricultural Situation*, pp. 174–77, comparing the price of wool with those of sheep and lambs.

[2] An examination of the evidence contained in the *Final Report of Her Majesty's Commissioners on Agricultural Depression*, c. 8540, reveals the same phenomena of high mortgage charges, rents and other costs, resulting in a severe diminution of agricultural income during falling prices. See also *The Truth about Agricultural Depression* (1897) by F. A. Channing, M.P., and *English Farming Past and Present*, by Lord Ernle, Chapter XV, with reference to the depression after the Napoleonic wars.

1. The cycle in agriculture is mainly a cycle in profits.

2. The economic lag and the lag in instantaneous costs cause agricultural net income to rise more than gross farm receipts during the early stages of boom. The differential gain thus occasioned is reduced as reaction sets in, and may be replaced by a differential loss due to the same causes. The variation in agricultural net income is likely to be greater, (*a*) the greater the variation in prices, (*b*) the greater the economic lag, (*c*) the longer the contracts entered into in respect of rent or interest on mortgages, (*d*) the longer the life of the instruments requiring replacement, (*e*) the greater the proportion of total expenditure attributable to the forms of capital against which charges are stable over a period.

3. The intensity of the period of depression following on a period of boom is increased by the increase in land values during rising prices, and by the number of transfers of land which occur during the later stages of boom. The increase in land values and in the number of transfers, will tend to be greater, (*a*) the greater the increase in net income, (*b*) the smaller the rise in the rate of interest on mortgages, (*c*) the fewer the restrictions on transfer, (*d*) the greater the speculative activity in land.

4. During the cycle the movement of marketing costs, including transport, causes the farm values of agricultural crops to rise more than the market values, but during the reaction the lag in these costs causes farm values to fall more than market values. The intensity of the profits' cycle in agriculture is thus increased.

5. The prices of different agricultural commodities rise and fall at different rates. In general, we expect producers' demand to vary more than consumers' demand, and the price of staple raw materials to vary more than the price of staple food-stuffs. For a given increase in the demand for finished products, using agricultural raw materials as a base, we expect price variations to be greater, (*a*) the greater the economic lag in manufacture and the greater the lag in instantaneous costs other than those involved in the purchase of raw materials, (*b*) the smaller the proportion of the cost of raw material to total cost of production. For a given increase in demand the rise in price will be greater, the greater the inelasticity of conditions of supply.

(b) *Economic Effects*.—Among the more general economic effects not specifically stressed we note the following as being the most important.

1. The increase in land values and in the number of transfers

during conditions of boom causes a considerable increase in mortgage indebtedness.[1]

2. This is accompanied by an increase in the volume of short-term loans against chattel security.[2]

3. When depression sets in, bankruptcies are increased [3] and forced sales to meet short-term loans are common.[4]

4. The general effect of agricultural indebtedness is to increase the share of the national dividend accruing to producing debtors during rising prices and to creditors during falling prices. The net effect of the cycle is probably to reduce the share of the national dividend accruing to producers, in the long run. This is economically bad.

5. During boom, credit becomes easy and its volume increases. During depression it becomes "frozen," and loans are secured on more onerous terms, thus increasing the difficulties of producers. Credit institutions are involved in difficulty and some may fail.[5]

6. On balance, the cycle tends to reduce the average level of productive efficiency owing to (*a*) increased transfer of land and the purchase and holding of land for speculative purposes, (*b*) over-capitalisation during times of boom, (*c*) the fall in liquid resources during depression, (*d*) the re-distribution of productive effort on existing farms. This is almost certain to involve some temporary loss of momentum.

7. In general, tenancy is inclined to increase. We believe this to be disadvantageous on the whole.

8. Businesses performing the marketing functions expand during boom and tend to become over-capitalised. Profits increase during boom and decline during depression, and some businesses may fail.

9. The lag in transport costs during rising prices brings about a disproportion between transport costs and market prices, and causes a regional re-distribution of industries. When prices fall, the ratio of transport costs to market values is again disturbed, and new industries established in districts remote from their markets suffer serious losses. The misdirection and loss of capital from this cause may be considerable.[6]

[1] On the increase of mortgage indebtedness in the United States, see *U.S. Stat. Abstract*, 1923, pp. 145–46. See also *N.Z. Official Year Book*, 1925, p. 689. On the increase in the number of transfers in New Zealand see *op. cit.*, p. 383.

[2] See, for example, the increase in loans against agricultural and live-stock paper in the United States, 1917–23, *U.S. Stat. Abstract*, 1923, p. 623.

[3] See Warren and Pearson, *The Agricultural Situation*, p. 49.

[4] See Annual Report of the War Finance Corporation (U.S.A.), November 30, 1922.

[5] *Ibid.*

[6] See *Agricultural Tribunal of Investigation*, Cmd. 2145, Appendix IX, pp. 345–46.

Enough has been said to combat effectively the idea that the trade cycle in agriculture is not serious. Although, in the present state of our knowledge of agricultural conditions it is not wise to be dogmatic, the present writer is of the opinion that the effects of the trade cycle in agriculture are as serious as in industry, even though they are less spectacular. The problems which have been very generally indicated in this paper are certainly worthy of careful and systematic investigation.

I desire to thank Mr. J. A. Venn, of the School of Agriculture, Cambridge, for useful suggestions in the preparation of this paper.

H. BELSHAW

THE GOLD STANDARD AND THE BALANCE OF PAYMENTS[1]

In the discussions which have recently passed regarding the re-establishment of the gold standard, prominence has been given to fears that our gold reserves may be threatened, particularly in the early stages, by an adverse balance of payments. It is argued that we may lose large amounts of gold either, for example, by excessive external investment or by a withdrawal of American balances.

In this paper I propose to examine the relation of an adverse balance of payments to gold movements from a theoretical standpoint.

The foreign exchange market is composed of dealers who carry on business at two or more centres, undertaking in each to buy and sell credits in the others. Anyone who wants to sell a credit in a foreign centre can bring to the dealer the bill, cheque or other instrument embodying his title to it, while anyone who wants to buy such a credit can obtain the appropriate instrument from the dealer.

The foreign exchange market works, like all other markets, by equalising supply and demand. A dealer must have his stock-in-trade in the form of credits in each centre in which he is dealing, either bank credits or suitable marketable securities. Upon those credits he draws when he sells the currency of that centre, and he replenishes them when he buys it. If his balances in any centre are too high or too low, he will endeavour in the first instance to adjust them by arrangement with other dealers in the contrary position. But it may happen that, after all such adjustments have been made, the balances of the dealers as a body in that centre are still too high or too low. In that case the remedy is the same as in any other market where the dealers' stock-in-trade has become too high or too low. The *price* of the commodity must be lowered in the one case, raised in the other.

The dealers in foreign exchange lower the price of a currency of which they hold too much, and raise the price of one of which

[1] A paper read before Section F of the British Association, Southampton, 1925.

they hold too little. The price is quoted in terms of the currencies of other centres.

At this point the process is materially modified by the use of a gold standard.

The meaning of a gold standard is that credits are exchangeable for gold and gold for credits at a fixed rate (or at fixed rates differing only fractionally). The currencies at several centres where this system exists are no longer independent. A balance remaining due from one centre to another can be paid without recourse to the exchange market, by the transmission of gold purchased in the debtor centre to be sold in the creditor centre. The existence of this alternative disables the dealers in exchange from re-establishing equilibrium in their market by raising or lowering the price of one currency in terms of another beyond the ratio at which the difference from gold parity will cover the cost of sending gold. As soon as they pass this limit, the bullion dealers will begin to move gold.

The gold plays the part of settling a clearing balance, just like a payment made by one clearing bank to another. It equalises supply and demand not by an adjustment of the relative values of the currencies dealt in, but by providing a means of paying for the excess supply. If the excess supply were purely casual, that would be sufficient; but if it were due to some relatively permanent cause, the result would be a continuing movement of gold, which might eventually exhaust the stock in the gold-exporting country.

In managing a gold standard it is essential to have regard to the underlying causes of an adverse movement of the exchange, which culminates in an export of gold, in order that, if the circumstances so require, steps may be taken to counteract those causes in time, and to prevent an undue loss of gold.

In the first place the causes may be divided into two classes, monetary and other. By monetary causes are meant those affecting the wealth-value or purchasing power of the monetary units. A country may lose gold either because its own monetary unit is being depressed in value by an excessive expansion of credit, or because the monetary units of one or more foreign countries are being raised in value by a contraction of credit.

Consider the former alternative. Credit expands, and the people receive a greater supply of the means of payment. More precisely the process is as follows. Dealers in commodities borrow more freely, and spend the proceeds in laying in fresh stocks. The producers from whom they buy receive the money as income, in

the form of additional profits and wages. As this additional income is spent, effective demand is increased. People buy more. They buy presumably all kinds of products.

Products may be divided into two main classes. Foreign-trade products are those which either are or might be exported or imported. They include actual imports and exports, the home-produced products which compete with imports, the home consumed portion of the exportable product, and finally any products which, though wholly produced and consumed at home, are so far exposed to potential competition with markets that they are tied approximately to world prices.

Home-trade products are all others. Prominent among them are services which can only be rendered locally, such as those of domestic servants, retailers, builders, transport workers, teachers and others. They also include certain commodities which are too bulky or heavy in proportion to value or are too perishable to be transported far, and others which suit only local tastes. Among these commodities there are, of course, border-line cases, which do not belong exclusively to either group.

Now, when credit expands, the additional purchasing power will be applied both to home-trade products and to foreign-trade products, but not necessarily in an exactly proportional extent to both. And the effect on the foreign exchange market depends upon the amount of additional demand applied to foreign-trade products. The increase in demand for home-trade products will either elicit an increase of supply or, in the case of those which are already being produced up to capacity, a rise of price. But foreign-trade products will continue to be governed by world prices, and the increase in demand for them will be felt mainly in the attraction of additional imports and the diversion of exportable goods to the home market, though here too there may be some increase in production. There will arise a relative excess of imports, which so long as it continues must be paid for with gold. The true significance of this phenomenon is that, when the currency is depreciated by a credit expansion, the world prices of foreign-trade products at the fixed par of exchange become too low in relation to the peoples' purchasing power. Too many of these artificially cheapened goods are bought, and, being bought, have somehow to be paid for.

To correct this tendency, and to stop the efflux of gold, what is needed is a contraction of credit sufficient to withdraw the redundant purchasing power and to restore the wealth value of the currency unit. If the situation is free from complications, the

requisite contraction is probably a very moderate one. The expansion cannot go far without causing a substantial loss of gold, and the contraction is as mild as the expansion.

What is much more serious is the case where there is a severe credit contraction in another gold-using country. Before the war that used to happen every few years. The gold-using countries, as a group, used quite regularly to allow credit to expand to an excessive extent, and then, when their gold reserves threatened to fall short of the legal requirements, they hastily took steps to contract credit, often at the cost of precipitating a panic. When one or several were in this state, their neighbours had to follow suit.

A monetary disturbance of the balance of payments is caused by a maladjustment of credit, and is corrected by a suitable regulation of credit. So long as other disturbing causes do not interfere, all that is required is that credit conditions should be as nearly as possible the same in different gold-using countries.

Disturbances arising from causes other than monetary are not to be settled by any such clear and simple general principle. These non-monetary disturbances may be divided into two kinds: those arising from changes in demand or supply of foreign-trade commodities, and those arising from what may be broadly and perhaps loosely termed movements of capital.

Take the case of a country whose exports are stimulated, either through exceptionally good crops, or through an improved foreign demand for its staple products. The producers and export merchants will become entitled to increased sums of foreign currency. It must not be taken for granted that these sums have all got to be remitted home. The working of the foreign exchange market, as indeed of all other markets, depends upon the actions of individuals, and to understand it we must see the position from the point of view of an individual.

The producer will, no doubt, want to be paid in the first instance in the currency of his own country. Probably the exporting merchant will draw a bill upon the foreign purchaser, and will sell the bill to a bank in the exporting country, receiving the price in the currency of that country. He will pay the producer out of the proceeds, and retain the balance for his own profits and expenses.

But that is only a first stage. It leaves the bank indebted to the producer and the merchant as depositors (or to those to whom they have made payments), and holding a foreign bill. The increase in the supply of foreign bills will tend to upset the balance

in the foreign exchange market, for the banks will be unwilling to hold assets in one currency against liabilities in another. But meanwhile the producer will be spending his money. He will spend it partly on consumable products and partly on investment. The consumable products will be partly home-trade products and partly foreign-trade products. The money spent on investments will come mainly into the world investment market. If the country is normally a borrower, its imports of capital will be diminished; if it is normally a lender, its exports of capital will be increased. There will be a residue of investment money that will go into an increase of capital assets at home, but, as the openings for investment are not themselves made more attractive, this increase will be casual and probably small.

Thus the prosperous exporting producer will spend a great part of his resources upon foreign-trade products and upon external investments (or in diminution of external borrowing). To the extent that that occurs, the disturbance of the equilibrium of the exchange market will be counteracted.

The spending power applied to home-trade products and to investment at home will tend to raise the level of prices of home-trade products above the normal proportion to world prices. The producers of home-trade products and the dealers in them will find their incomes increased, and they in turn will tend to spend part of their increased resources upon foreign-trade products and external investment. This process will continue till the exceptional exports are fully covered either by imports or by external investments. Some expansion of credit is incidental to it, and gold may have to be imported if the currency law will not admit otherwise of the requisite expansion. But when the exceptional exports have been disposed of, and the corresponding imports and external investment securities received, the expansion of credit subsides again, and the gold can be sent away. Thus the gold does not ultimately pay for the exceptional exports. Its real function is to render the necessary credit expansion possible. It does, of course, *temporarily* pay for such part of the exports as is not covered up to date either by credit operations or by the permanent means of settlement, but it is ultimately returned. And, moreover, it would be possible by a suitable management of credit to avoid the gold movement altogether.

In the contrary case, where there is a shortage of exports, the movements are parallel but opposite. The exporting interests must curtail their expenditure. External investment is diminished, external borrowing is increased, purchases of foreign-trade

products fall off. In so far as the decline of demand applies to home-trade products, the home markets become less prosperous and those who trade in them have to curtail their expenditure in turn. There must be a contraction of credit, and, if the contraction is not sufficient, there will be an export of gold.

The expansion or contraction of credit is really required to adjust the value of the currency in the home-trade markets to the new equilibrium in the foreign-trade markets. Home-trade products and foreign-trade products are in competition with one another as alternative objects of consumption and as alternative objects of production. If the foreign exchanges were free to vary, economic weakness such as a shortage of production would make itself felt in an adverse exchange. With a gold standard the exchange is pegged, and the balance can then only be restored at the cost of tribulation by a reduction of the internal price level.

A particular case of the disturbance of the exchange market by variations in production is the seasonal movement, which accompanies the export of the crops from a predominantly agricultural country. Here the problem is simplified by the possibility of foreseeing the movement of the market. Banks will have less objection to holding assets in one currency against liabilities in another when they know that in a few months the balance will be automatically redressed. But they will not do so if there is a serious risk of a loss by exchange. If such a risk exists, the financing of seasonal exports tends to devolve on the banks of the exporting country, so that the actual exchange operations may be deferred till the compensatory imports begin to come into the market. In so far as this cannot be managed, awkward exchange disturbances are likely to occur.

One of the advantages of an international gold standard is that it eliminates this exchange risk, and facilitates the financing of seasonal exports. The process does not really require any gold movements. The temporary discrepancy between exports and imports can be just as well covered by credit instruments if the exchange market possesses them or is in a position to create them. Before the war American imports in the period before the great autumnal crop exports began were financed without any serious disturbance of the exchange market, because the American banks used to draw finance bills on London and sell them for sterling in the London money market. In effect the London money market lent the necessary sterling and it was repaid in the autumn, when the crops provided American exporters and through them American banks with ample supplies of sterling. The variation

of the sterling exchange within the gold points, small though it was, was sufficient to make this business profitable.

It should be mentioned that in the great crop-producing countries, besides the seasonal disturbance of the exchange due to the export of the crops, there is also a seasonal disturbance of the currency due to the purely domestic business of paying for them. The producers are scattered over the productive land, whereas the dealers are concentrated at the market centres. At harvest-time the farmers have to make exceptionally heavy payments in cash to their labourers, and the farmers themselves are often compelled, owing to inadequate banking facilities in their immediate vicinity, to hold a great part of their funds in notes or coin. The dealers who buy from the farmers keep their balances in the form of bank credit. They have to draw out money from the banks to pay the farmers. The result is a big seasonal increase in the active circulation of specie and paper. If the currency law takes no account of this seasonal increase, and if the central bank or other note-issuing authority does not allow a large fluctuation in its surplus reserves, there will have to be a seasonal disturbance of credit. Every time the demand for the money for crop-moving occurs, there must be a contraction of credit, which will probably bring about an import of gold. That, however, is pure mismanagement. It has no real connection with the balance of payment, and is merely a special case of monetary disturbance.

The conclusion to be drawn from the foregoing analysis is that a disturbance of the balance of payments arising from a change in the demand or supply of commodities, whether seasonal or other, is properly met by a suitable adjustment of credit. The transmission of gold is only necessary in so far as the adjustment of credit does not exactly keep pace with the disturbance. The loss or gain of gold as the case may be tends to bring about the contraction or expansion of credit required.

We pass next to the so-called capital movements. The modern investment market is internationalised, and the special characteristics of an investment market have important and complex reactions on the foreign exchange market.

An investment market receives money from investors, and it buys new capital issues from promoters. But the new issues are not in general directly bought by the new investors. The dealers in the market hold a supply of investment securities as their stock-in-trade. The investors buy what securities they please, new or old, from the dealers. The dealers find investors to buy

the new issues, but these may be people who have sold old securities to buy them. The dealers so adjust the price of all kinds of securities, new and old, as to induce investors to buy them, in order that the dealers themselves may not at any time be left with an excessive supply either of securities as a whole or of any particular issues.

The places in which the investors' funds are available are not the same as the places in which the expenditure on the creation of new capital has to be incurred. Investible funds accumulate at the great financial and commercial centres. A very large proportion of the capital outlay is required in the new countries in course of development which are remote from these centres. The great investment markets are situated at the financial centres, and the greater part of the funds invested through them are derived from the countries in which the centres are situated. But an investment market usually also receives a substantial amount of funds for investment from abroad, partly from other investment markets, and partly from countries which are not big enough investors to sustain an investment market worthy of the name.

If the stream of investment money pouring into the market and out into the provision of new capital were a continuous one, only fluctuating gradually, the effect upon the foreign exchange markets would not be very great. The stream, however, is far from continuous. Capital projects are frequently very large. And only large issues are suitable for dealings in the investment market, and more especially for international dealings. The consequence is that the foreign exchange markets have constantly to adjust themselves to large movements of funds in one direction or another.

When a capital project is undertaken in a country and is financed from a foreign centre, the promoters have to provide for the transmission to it of the funds contributed in the investment centre. A part of the outlay to be financed will be on foreign trade commodities (such as machinery or structural steel). These may be imported, or, if produced locally, diverted from export. But that is likely to be a very moderate proportion of the whole expense. Probably the greater part of the outlay will be upon labour employed locally either directly on constructive work, or on the provision of materials derived from local sources. The funds subscribed at the investment centre must be transmitted to the country to pay for these services. If the sum to be transmitted is large, it would seem to threaten the equilibrium of the foreign exchange market. A new supply of the currency of the

investment centre is created, and likewise a new demand for that of the capital-importing country. If there is no compensatory movement set up, the balance must be cleared by the transmission of gold.

But it is easy to see that there is a compensatory tendency. The people employed locally on the capital project find their resources increased. As in other similar circumstances, they buy both foreign-trade products and home-trade products. In so far as they buy the former, they directly relieve the foreign exchange situation. In so far as they buy the latter, they bring about a rise of internal prices and an increase in the incomes derived from producing and dealing in home-trade products. These incomes in turn are applied partly to foreign-trade products. The process must go on till imports are so increased relatively to exports that equilibrium is attained, and the whole of the capital imported is being received in the form of goods.

The expansion in purchasing power presupposes an expansion of credit. With a favourable exchange the authorities controlling credit may be presumed to permit an expansion. If they do not, gold will come. It is probable that some gold will be imported, for either law or practice is likely to require additional gold as a condition of a credit expansion.

The function of the credit expansion is to make the markets for foreign-trade products in the country sufficiently favourable to attract a relative excess of imports equivalent to the import of capital. The extent of the credit expansion needed is determined by the import of capital per unit of time. If the capital expenditure is completed quickly, the disturbance will be greater, but will be over as quickly as the expenditure. When the capital expenditure is completed, the expansion must be reversed by an equivalent contraction, and the gold imported (if any) will be sent away again.

The process of adjustment for the investment centre which exports the capital is in some respects more complicated. The discontinuity, it is true, is less apparent, because there is a succession of capital issues for different parts of the world. The transmission of funds for any one of them overlaps with many others. The balance of trade has only to accommodate itself to the resultant effect of all taken together. The balance of exports and imports with any one capital-importing country does not have to correspond to the volume of investment from the centre in that country, because equilibrium may be effected through triangular or polygonal trade.

Even so, however, the volume of external investment fluctuates considerably. The fluctuation is due to two causes, changes in the demand for capital abroad and changes in the supply of investible funds at home. The changes in the world demand for capital may be very large. The development of a new territory, when once it begins, often goes with a rush. Prospectors wait till it is ripe for the provision of the primary means of transport, and, that once installed, the inflow of population and consequently of capital is rapid. Technical improvements and discoveries either in production or in transport likewise may involve the investment of new capital on a very large scale. The largest capital movements of all are caused by the needs of Governments during and after war.

Changes originating in the supply of investible funds are less violent. The supply increases when profits are high, and falls off when profits are low. Profits may vary owing to the trade cycle, or as far as they are derived from agriculture owing to the yield of crops. Such variations, though not negligible, are neither very sudden nor usually very large. Now the investment market, like all other markets, must equalise supply and demand. The dealers in investment securities are unwilling to see their stock-in-trade either increased or decreased unduly. Side by side with the problem of accommodating the foreign exchange market to the movements of capital is the problem of adjusting the demand for investible savings to the supply. The supply of investible savings is not easily influenced. It is a mistake to suppose that the offer of securities at a low price giving an attractive yield elicits increased accumulations. The motives of saving are little strengthened and may be actually weakened by an increase in yield. The most that can be expected from a rise in yield is a temporary hastening of saving to seize the opportunity offered, and even that will not occur if the rise in the rate of interest is expected to be lasting.

It is therefore the demand for capital rather than the supply of savings that the investment market seeks to influence. When the demand becomes excessive and begins to outstrip the supply of savings, the first symptom is usually that a large proportion of the new flotations is left on the hands of underwriters. The remedy is twofold. In the first place the prices of securities are lowered, so that the market becomes less attractive to borrowers, and secondly the charges for issuing and underwriting loans are raised. There is a general unwillingness on the part of issuing houses and others concerned to bring out loans, and borrowers are advised to wait.

Borrowers and promoters, however, are not easily deterred. The efficacy of these measures is uncertain. And in any case they are not applied seriously unless there is *already* an excess of new issues. A periodical state of congestion or over-lending is a common characteristic of investment markets.

When it occurs, this over-lending puts a serious strain on the foreign exchange market. So long as external investment is made entirely from the genuine savings available in the investment markets, the foreign exchange position more or less looks after itself. The investor provides funds by restricting his own consumption, and this restriction of consumption (accompanied if need be by a suitable contraction of credit) produces the requisite relative excess of exports. Fluctuations in the amount of genuine savings applied to foreign investments do not ordinarily require much regulation of credit.

But when external investment outstrips the supply of genuine savings, the investment market has to carry the excess with money borrowed from the banks. That means that funds have to be sent abroad when there is no compensatory restriction of consumption at home. The additional lending by the banks creates a fresh supply of the means of payment, and tends to depreciate the purchasing power of the currency, while the occasion of the additional lending is such as to concentrate the first impact of this inflationary tendency upon the foreign exchange market.

The remedy is a contraction of credit. A rise of bank rate, accompanied, if need be, by measures to make bank rate effective, results in a rise in the rate of interest to be paid by dealers in the investment market. That immediately makes underwriting more difficult. Even if the price of issue of a new stock is nicely calculated, and the underwriters are confident that they will be able ultimately to dispose of any portion left with them at that price, the cost of holding it for any considerable time with money borrowed at a high rate would make a large hole in their profits. Further, each underwriter expects all the others to be anxious to dispose of their holdings, and therefore anticipates an unfavourable market.

At the same time dealers become less willing to hold existing securities. As soon as the interest paid on borrowed money exceeds the yield of the securities carried with it, the dealer incurs a loss, against which there is no compensation unless the price of the securities rises. But under the conditions supposed the prices of securities are more likely to fall than to rise. Dealers will endeavour to mark down prices to an equilibrium point at which

the adverse state of the market is fully allowed for. But the equilibrium point itself depends upon the expected duration of dear money. Dear money must continue till it has done its work, and so long as the credit position appears unsound, the unwillingness of the investment market to hold securities will persist.

If only one investment market among several is in this congested state, relief will come quickly, because other markets will hasten to buy securities from it cheap. But in general the pressure from an exceptional demand for capital will be felt by all investment markets at the same time. The credit stringency will arise in all countries which possess big investment markets, and will be most acute in those where the volume of dealings is greatest in proportion to banking resources.

The effect of a high bank rate will not be confined to the investment market. It will not affect the commodity markets any the less because it has been imposed to meet the conditions in the investment market. But the creation of credit to carry investment securities will in the first instance have produced an expansive effect upon the commodity markets, hastening purchases, stimulating production and raising prices. In so far as the restriction of credit merely cancels this expansive effect, it will not produce a depression in the commodity markets.

If there is no increase in the total amount of bank loans, and if the portion required to carry investment securities increases, the portion available for carrying stocks of commodities decreases. But then it must be remembered that the whole disturbance has been assumed to start with excessive exports of capital and consequent unfavourable exchanges. As fast as the unfavourable exchange drains away gold, room is made in the bank balance sheets for loans equivalent in value to the gold withdrawn. And when the inflationary tendency is counteracted by dear money, the dealers in commodities are induced to hasten their sales. If they pressed on sales and restricted purchases in the home market, the result would be depression, but they find a vent in sales abroad, where the capital-importing countries are expanding credit and absorbing commodities.

Equilibrium cannot be fully regained till the demand for capital has been damped down by the adverse state of the investment market, not merely to normal but *below* normal; for the exceptional indebtedness of the investment market has to be liquidated.

If borrowers are very insistent, there may be a very heavy depreciation of securities. In an extreme case there may be a

crisis and panic, in which the flotation of new issues becomes temporarily impossible.

Unsound conditions may arise in the investment market not only from an excessive demand for capital, but also from excessive speculation. Speculators for a rise, directly or indirectly, carry securities with borrowed money. The development of some new territory, or new industries, or new materials, or new inventions may present the prospect of greatly increased profits from existing shares, and speculators will come forward to buy the shares with borrowed money. The sums received by the sellers of the shares come into the market on the same footing as a new accession of investible savings. Capital flotations are thereupon artificially encouraged, and the same sort of unsound conditions arise as if the pressure had arisen from sellers of securities instead of from buyers.

Central banks rightly fear speculation in stocks and shares as particularly dangerous to credit stability. Redundant imports of securities are more easily attracted than redundant imports of commodities, and, once imported, are more likely to remain unabsorbed in the hands of dealers or speculators.

Under the general heading of movements of capital, usage would include, besides the migration of investment securities, the transfer of liquid balances or short-term securities from one centre to another. This is an obscure and complicated subject.

Liquid balances may take either of two forms: they may be bank credits belonging to depositors, or they may be composed of the short-term securities in which banks place their funds. The former are owned partly by traders and partly by other banks. Traders' balances do not as a rule migrate at all readily. They are held in the places where the traders expect to have to make payments, and are for the most part confined to necessary working balances. Most traders are accustomed to economise cash balances as much as possible, and to replenish them when necessary by borrowing from their bankers. Any big cash receipts are applied to repaying these borrowings. Some traders, it is true, prefer not to be dependent upon their bankers, and accumulate at times large current balances. Even these, however, are not very readily moved from place to place for the sake of profit.

The international movement of liquid balances is an operation which is almost entirely in the hands of banks or of those financial houses which partake of the character of banks. To estimate the manner and extent of such movements we must examine the motives by which a bank will be actuated. Banks may be divided

into exchange banks and interior banks. Exchange banks are those which carry on business in more than one country. Interior banks provide exchange facilities for their customers, but only as agents. They probably have balances with foreign correspondent banks, but these are no more than working balances. The line of demarcation between exchange banks and interior banks is not very clear, because interior banks may occasionally make use of the facilities they receive from their correspondents to do exchange business on their own account. Banks also which are primarily interior banks sometimes have exchange departments affiliated to them.

A fully developed exchange bank receives deposits in more than one centre, and against its obligations holds assets payable in more than one centre. The general tendency is to aim at covering every obligation with assets payable in the same place and in the same currency. But this is not an invariable rule. Before the war exchange banks in many countries found trade being financed mainly by bills drawn on London; not only goods consigned to England, but goods consigned to other countries were so financed. The banks were constantly buying sterling bills from exporting traders. They often sold these bills after acceptance in the London money market, but they always had the alternative of holding them. If they sold them, it was usually either to pay sterling liabilities or to remit the proceeds home. They could also lend the money at call, but that course did not differ very materially from holding the bills.

Sterling bills were so convenient an asset, owing to the free London discount market, that an exchange bank might very well allow its holdings to exceed its sterling liabilities, and even to exceed them by more than its disposable margin of capital, so that some of its obligations in another currency would be covered by them. It was always possible to sell a sterling bill in the discount market, and the proceeds were always equal to gold in a free gold market. Obligations in other currencies could be met in gold, and therefore there was no exchange risk beyond the fractional variations within the gold points. So long as the convertibility of sterling into gold could be absolutely relied on, sterling bills were a safe cover for a liability in any other gold standard currency. But an exchange bank is not free to increase its sterling assets as it pleases. Its assets as a whole cannot increase unless its liabilities increase, and with a given volume of deposits its sterling assets can only increase at the expense of its other assets. These other assets probably consist mainly of local

advances to customers, which can only be reduced with difficulty and at the cost of embarrassment to the customers.

The bank can substitute a sterling bill for an advance in the local currency without any such embarrassment, provided the bill merely takes the place of the advance for the purpose of financing the same transaction. But that is a change of form rather than of substance. It is not a movement of capital. In fact the change from an advance to a sterling bill would probably be intended to facilitate a withdrawal of balances *from* London, by way of the sale of the bill in the London money market and the remittance of the proceeds.

A bank may move funds from one centre to another for either or both of two principal reasons : it may seek a profit on exchange, or it may seek a higher rate of interest. As between two countries with no common currency, gold or other, exchange profit is the principal motive of such movements. Especially where the exchange is made unstable by political and other speculative influences, the profit on exchange, if successfully foreseen, may be very large. It does not necessarily follow that the movements of balances will be very large. Those movements will only occur so long as the holders of balances believe that the quoted rate of exchange is still short of the equilibrium point. If the exchange market worked perfectly, the rate of exchange would always move quickly to the point at which supply and demand balance, and there would be no considerable movement of funds.

But in any case, with a gold standard established in the different centres concerned, the profit on exchange cannot be very attractive. People expect the exchange to gravitate towards parity, and the most usual form of speculation will be to hold balances in a centre at times when they can only be sold at an exchange loss, and to remit them when the exchange offers a profit. That kind of speculation has a steadying influence on the rate. When the adverse exchange is seasonal, so that its recovery can be counted on with a very high degree of probability, banks will even go so far as to create finance bills and borrow from a foreign centre for the sake of the exchange profit.

The movement of balances to take advantage of a higher rate of interest on short-term loans or discount on bills has a special importance on account of the reliance of central banks upon bank rate as a means of correcting the exchanges. When the exchange tends to turn against a country, the central bank puts up bank rate in order to induce a contraction of credit, to raise the purchasing power of the currency unit, and so to bring about a

recovery. But if the effect is that disposable balances in foreign centres are attracted thither to be lent at the more profitable rate, this purpose is likely to be partially defeated. Indeed if the market in short-term lending were absolutely fluid, so that every lender were equally free to lend in all centres and every borrower to borrow from all centres, the same discount rate would prevail everywhere. Exchange risk, even though confined within the gold points, would prevent this. But in the particular case we are assuming the country which raises bank rate already has its exchange at the export gold point. If the gold standard is maintained, the exchange cannot become worse, and consequently, subject to that condition, there is no exchange risk in lending there.

There is, in fact, a distinct tendency for balances to move towards a centre where the discount rate rises. But these balances do not come in gold. They affect the exchange favourably, and in the first instance prevent or diminish the export of gold. If the volume of balances were so great as to produce a substantial recovery of the exchange, there would immediately arise an exchange risk. If the exchange were ½ per cent. short of the export gold point, the prospect of a relapse to the export gold point could offset the profit from a 2 per cent. gain in interest over a period of three months.

That illustrates how slight is the effect of a gain in the discount rate as compared with an exchange risk. Nevertheless if the disposable balances available for international movements were large, any centre could for a time prevent an efflux of gold by raising discount rates. But the preventive effect would only last while the balances were actually moving. They are not inexhaustible, and when the movement is completed, they must be retained or their withdrawal will put a double strain on the exchange.

If the balances do not move in the form of gold, it must be in the form of goods or securities. In the case supposed, where the discount rate is put up to counteract an unfavourable tendency in the exchanges, a relative excess of imports is already threatened by the state of markets, and the movement of balances may do no more than allow all or part of this excess to come without depressing the exchange.

This support of the exchange is transitory, like the support derived from exports of gold. It is essential that the restrictive credit measures should be persisted in, despite the favourable effect of the transfer of balances, till the underlying currency conditions have become sufficiently favourable.

In some respects the transfer of balances assists the restrictive measures. The acquisition in any country of bills and other liquid assets by foreign banks diminishes the supply of such assets for the banks of the country to hold against their deposit liabilities, and the volume of their deposits is accordingly reduced. If the discount market were normal, they would wish to increase their loans and discounts in order to make up the deficiency. But if the central bank maintains a high bank rate and makes it effective, borrowers will be deterred by the high rate and the banks will be kept short of cash. There will thus be a real decrease in deposits.

Nevertheless the movement of balances is on the whole an inconvenience to a central bank which is seeking to regulate credit. Its tendency to spread a rise of discount rates to other countries, and so to defeat the purpose of restoring equilibrium, is probably predominant, and it produces a dangerously unstable position, because the balances will be withdrawn again as soon as discount rates are equalised.

But the importance of the movement of balances is apt to be very much over-estimated. The extent to which exchange banks can transfer their liquid assets, without either reducing their marketable assets in their own countries or embarrassing their customers, is not very great. The fact is that every time the exchange market becomes active balances *appear* to be moving. Whenever there is an exceptional international movement of commodities or of securities, the dealers in the exchange market take a little time to adapt themselves to it. In the interval before the necessary measures have been taken, such as the adjustment of the rate of exchange, the movement of gold, and the regulation of credit, the balances in the hands of the dealers in exchange will get out of trim. The balance in a centre which has had to make heavy payments will become inconveniently large, and the dealers, who are for the most part exchange banks, will have to move their surplus funds away. It then looks as if a great part of the movement in the exchange market consisted in the transfer of liquid balances by banks. But in reality this is merely a symptom.

It will be seen, therefore, that the fear so widely felt that the maintenance of the gold standard may be threatened by large and unforeseen disturbances of the balance of payments is to a great extent mistaken. In fact the great gold movements of the past have usually been brought about not by the burden of payments but by monetary convulsions like the American crisis of 1907.

In conclusion I may point out that the subject of which I have

been treating has a special importance for this country, owing to the magnitude and leading position of the English financial markets, particularly the investment market, the foreign exchange market and the discount market. If the international movement of balances ever takes place at all on a serious scale, it is to or from London. In London alone can bills be bought and sold at all times at a closely competitive price in practically unlimited quantities, and between parties who are not in the relation of banker and customer.

The international side of the London financial markets has suffered in some respects from the instability of the exchange while the gold standard has been in abeyance. The restoration of the gold standard is likely to bring with it, among other things, a revival of the bill on London. If international trade is in the near future to be financed to an increasing extent by means of bills drawn on London accepting houses and banks, there must be an export of capital. This business brings with it a certain accretion of balances on deposit in London, but these are small compared to the amount of credit granted by the London money market to external borrowers. The pressure will be felt rather in the money market than in the exchange market. If the money market can absorb the additional bills there will be little or no pressure on the exchange.

On the other hand, there is a tendency, which was already manifest before the war, for foreign central banks to hold sterling bills and other marketable assets in London as part of their currency reserves, in place of gold. They, in fact, permanently lend liquid balances to London, only drawing on them temporarily, when necessary to meet an exchange disturbance. An increase in such balances is an importation of capital into England.

If these balances are used, on the principle of an exchange standard, in entire substitution for gold movements, that means that when England would otherwise be receiving gold from the countries in question they will be selling sterling bills and decreasing their balances; when these countries would otherwise be receiving gold they will be buying bills and increasing their balances. If the Bank of England raises bank rate to check an adverse exchange movement, and exchange banks are thereby induced to increase their holdings of sterling, that means that the exchange banks acquire some of the sterling bills that would otherwise pass into the hands of the central banks of their own countries.

One effect of the increased use of the exchange standard is likely

to be to throw into relief the special position of the two principal gold markets, London and New York. Fears are sometimes expressed that the predominant position in currency policy will belong to New York.

The Americans hold a disproportionately great gold reserve. *If* they chose to employ this reserve in support of a credit expansion, they could, no doubt, exercise an overpowering influence in other gold standard countries. It might become almost impossible for these countries to counteract the expansive tendency by absorbing the gold. But there is little prospect of America doing anything of the kind. In fact the avoidance of an undue credit expansion is at present the leading principle of their currency policy. So long as that is so, their redundant gold supply is nothing but an embarrassment and a source of weakness, impairing the efficacy of the control of credit by the Federal Reserve System.

An argument which is more to the point is that the American financial markets are on so vast a scale that movements which to New York are relatively slight would be serious disturbances to London.

Not only is America richer than Great Britain, but the purchasing power of money there is less, so that the disparity in nominal values is even greater than in real values.

But relative wealth is not the only factor. London is a banking centre not for Great Britain alone but for the greater part of the world. And in America itself business is sensitive to British credit conditions. A very substantial proportion of American crops is exported and marketed in Europe, and these exports are financed in their latter stages mainly in London. In the regulation of credit in America the financing of crops plays a prominent and often decisive part. A substantial part of American imports, even from countries other than England, is also financed at some stage by London.

In American banking the financing of producers predominates; in British banking the financing of merchants. American banking is nearly confined to American business; British banking extends to the business of the whole world. In both respects British power over world credit is likely to be the greater.

R. G. HAWTREY

THE DISTRIBUTION OF NATIONAL INCOME

THE problem of distribution presents two different aspects and may, accordingly, be approached from two distinct viewpoints. In one case, the attention of the student is focussed on the mechanism of the process; in the other, on its results; that is, on the division of society into separate groups distinguished by the amounts of their respective incomes. Hitherto the attention of economists has been concentrated almost exclusively on the mechanism by which the wages of labour, the rent of land and the profits of capital and enterprise are determined. As to the actual distribution of national income, there has existed a feeling of uncertainty even about so important a question as that of whether there is in the distribution sufficient regularity to justify any definite conclusions as to its underlying tendencies.

Meanwhile there is at hand a wealth of materials bearing on the actual distribution of national income and on its variations, available in the form of income-tax statistics. All that is needed to turn this highly valuable material to account is to devise an effective method for its analysis and interpretation. It appears to the present writer that the methods hitherto used for this purpose can hardly be described as satisfactory, since, as a rule, they fail to distinguish the real changes in the distribution of national income from variations in the amounts of income due to the growth of population and to the development of productive powers.

The method most commonly used consists in comparing the numbers of individuals in each of the groups into which the population is divided in taxation statistics, according to the different rates of assessment, at two different dates. Starting from the classification adopted in the statistics used, economists try to adapt it for their purpose by comparing the changes in the numerical strength of the groups. One of the first to use this method was Rodbertus,[1] followed by E. Engel,[2] Ad. Wagner [3]

[1] C. Rodbertus-Jagetzow, *Zur Beleuchtung der sozialen Frage*, Th. II, herausgegeben von Ad. Wagner, 1899.

[2] *Zeitschrift des Kgl. preussischen statistischen Bureaus*, 1875.

[3] "Zur Methodik der Statistik des Volkseinkommens und Volksvermögens," *Zeitschr. Kgl. preus. stat. Bureaus*, 1904.

and others, who applied it to the analysis of Prussian income statistics. The expediency of this method was disputed by Julius Wolf, who laid stress on the fact that the really important point is not the relative increase in the numerical strength of the separate groups, but the extent of migration from each group to others with higher or lower incomes.[1] Yet, the method proposed by him was hardly more satisfactory than the older one. It failed to give any information as to migrations from the highest group, on the one hand. On the other, the percentages of migrants to higher groups clearly depend not only on the actual increase in wealth, but also on the width of class intervals used. Finally, the interpretation of the changes depends on the inner structure of the groups, that is, on the regularity of distribution within the intervals.

Both methods having thus failed, Vilfredo Pareto decided to give up the study of variations in the separate groups and proceeded to the investigation of the curves of distribution of national income as a whole.[2] His researches resulted in the discovery of the highly important fact that the distribution of wealth in ·ll capitalistic countries is strikingly stable and regular. This was, indeed, the first strictly scientific generalisation in the theory of distribution.

Yet, great as was the scientific value of Pareto's discovery, his investigations represented but the first step in the empirical study of the complicated problem of the distribution of national income, which cannot indeed be reduced to the much simpler and less important question of the accentuation or attenuation of the inequality of incomes. What is really necessary is to acquire some insight into the phenomenon of the distribution of incomes by studying changes in the incomes of separate groups and classes.

The failure of all the methods hitherto used in this respect seems to suggest that the fault is not so much with the methods. as with the statistical tables, that is, that the tabulation is defective. No statistical table can possibly give more information than it contains. Meanwhile, the tables on which Wagner, Wolf, Kühnert and others based their investigations were constructed in accordance with the classifications adopted by the financial authorities and very well adapted to serve fiscal purposes. Yet, for the purpose of investigation into the distribution of

[1] Jul. Wolf, *Sozialismus und kapitalistische Gesellschaftsordnung*, 1892, pp. 232–5.

[2] Vilfredo Pareto, *Cours d'économie politique*, Vol. II, 1897.

national income and its variations, it is evidently necessary to adopt different principles of classification.

In income statistics the investigation is concerned with countries whose population and income are subject to increase in course of time. The changes in the distribution of national income registered by income statistics are produced by the combined influence of two causes: the growth of national income on the one hand, and variations in its distribution on the other. In the primary table the influence of the former must be eliminated, in order to be able to obtain a clear view of the latter. Owing to growth of population and increase in national wealth, one thousand persons in Prussian statistics for 1913 represented a different proportion of population than the same number did in those of 1896. An income of 1,000 marks in 1913 is different from one of the same amount in 1896. This has been emphasised by Huncke,[1] Bresciani,[2] Watkins,[3] Kiaer,[4] and Helfferich.[5] Hence, the necessary conclusion that, if a table is needed in which the phenomena of distribution would appear unblurred by any outside influences, all unessential variables should be carefully eliminated.

The table must represent the percentages of population, instead of the numbers of people, in receipt of incomes of specified amounts,[6] while the incomes must be calculated not in money, but in what we shall call *budget units*, that is, in terms of the average income per head of population. By the adoption of this method both variables which make the analysis and interpretation of income statistics so difficult are completely eliminated, and an exact representation of the distribution of income is obtained. In the actual tabulation it would certainly be best to proceed by counting up the original registration cards of taxpayers, from the highest income group downwards, and

[1] E. Huncke, "Methodologisches zur Verwertung der Einkommensteuerstatistik," *Allg. Stat. Archiv*, VII, 1907, pp. 101-2, 106-7.

[2] C. Bresciani, "Über die Methoden der Einkommensverteilungstatistik," *Jahrb. für Nat. Oek. und Statistik*, 1907, pp. 594-8; also "Kritische Betrachtungen über ein. Meth. der Einkommenst.," *Stat. Mon.*, 1915, pp. 9-10.

[3] G. P. Watkins, "Interpretation of Certain Statistical Evidence of Concentration of Wealth," *Quart. Public. of the Amer. Stat. Assoc.*, 81, 1908.

[4] A. N. Kiaer, "Répartition sociale des revenus," *Bulletin de l'Institut Internat. de Statistique*, Vol. XVIII., 1909, Part I, p. 72; Part II, pp. 121-2, 126-7.

[5] K. Helfferich, *Deutschlands Volkswohlstand*, 1888-1913, 7-te Auflage, 1917, pp. 135-9.

[6] Percentages of population are preferred here to those of persons registered for taxation, as the latter is not a stable quantity, either absolutely or in relation to the population.

marking off every successive per cent. of the population, so as to know what percentage of population is in receipt of income of every given amount. Unfortunately, however, the original registration cards are inaccessible, and the student is confined to the ready tables published by the fiscal authorities. As a result, one is compelled to have recourse to interpolation, as a rough approximation, in constructing the necessary tables. Besides, in the tables given below it was necessary, owing to the grouping adopted by the Ministry of Finance, to confine the subdivision, in the case of smaller incomes, to a small number of large classes.

The construction of the tables for Prussia and Saxony was easy enough. The table includes only incomes of private persons, those of the State, municipalities and corporate bodies being omitted. In the case of Prussia, following Helfferich's estimate, the average income of persons in the group with incomes up to 900 marks is put at 750 marks a year, while that of persons in receipt of incomes exceeding 900 marks, but enjoying exemption, is assumed equal to 1,000 marks a year on the average. The table is given below.

	Prussia.				Saxony.
	1875.	1896.	1913.	1919.	1912.
Population . . .	24,525,778	31,350,000	40,751,635	37,806,200	4,881,600
Number of persons registered . .	11,592,846	11,473,418	16,017,018	15,815,749	2,234,536
Percentage of population included .	47·3	36·6	39·3	41·8	45·8
Income of the population, total	7,437 mil. marks	12,773 mil. marks	22,927 mil. marks	34,340 mil. marks	3,223 mil. marks
Income per head .	303 m.	407 m.	563 m.	908 m.	660 m.
Income per head of Persons included in Fiscal Statistics, in Budget Units.					
Up to 0·1% of pop.	70·3	99·8	115·5	145·5	105·7
0·1–0·2% . . .	22·4	27·7	30·4	36·7	34·2
0·2–0·3% . . .	16·3	19·3	20·4	23·1	23·2
0·3–0·4% . . .	13·5	15·3	16·0	17·4	18·0
0·4–0·5% . . .	11·5	13·0	13·4	14·1	15·0
Up to 0·5% of pop.	26·8	35·0	39·1	47·4	39·2
0·5–1·0% . . .	9·3	9·4	9·5	9·7	10·7
1·0–2·0% . . .	6·1	6·0	6·4	6·1	6·7
2·0–4·0% . . .	4·2	3·9	4·1	4·4	4·4
4·0–10·0% . . .	2·8	2·5	2·8	3·0	2·7
10·0–20·0% . .	1·8	--	1·9	1·8	1·9

This table shows that the distribution of national income, in so far as the wealthy and well-to-do classes, with the exception of the very wealthiest group, hardly amounting to 0·5 per

cent. of the population, are concerned, exhibits a striking degree of stability. In the period of 43 years represented by the table, Prussia has developed her large industry and has been through the World War. Yet, as a result of her evolution during that period, the average income of the group of her population coming next to the wealthiest 0·5 per cent. and contained between the limits 0·5 to 0·1 per cent. in the table, rose from 9·3 to 9·7 budget units; that of the following one (1·0–2·0 per cent.) remained stationary at 6·1 units. The only section of the population whose income grew continually, both in peace and in war-time, is the wealthiest group at the top of the scale. The share of national income falling to members of this group in Prussia increased, since 1875, by about one-third of a budget unit a year on the average. This increase at one end of the social scale had to be compensated by a corresponding reduction at the other, among the working classes.

Helfferich, when analysing the distribution of incomes in Prussia in 1896–1912, expressed the view that "the equality with which the shares of various classes of society in the great increase in national income since 1896 are distributed is simply striking." Accordingly, he emphatically rejects the proposition that there was in Germany any tendency to "plutocratic development" in the sense that the wealth of the richest few increased at a much faster rate than that of the people in general.[1] Our figures, however, would appear to suggest that this conclusion is in contradiction with facts. Tendencies towards "plutocratic development" are certainly in evidence in Germany, in common, as will be shown later, with other capitalistic countries.

The distribution of national income in the younger countries, such as the United States and Australia, is approximately the same.

In the case of the United States the figures used, instead of being taken from income-tax statistics, are based on tables of the estimated distribution of national income compiled by W. King [2] for 1910 and Fr. Macauley [3] for 1918. Preference had to be given them because income-tax statistics do not include farmers. Meanwhile, in 1918, of the 5,291,000 individuals or families in receipt of incomes exceeding 2,000 dollars, 2,008,000 were farmers.[4]

[1] Helfferich, *op. cit.*, pp. 133–7.

[2] W. I. King, *Wealth and Income of the People of the United States*, 1919, pp. 224–6.

[3] *Income in the United States, its Amount and Distribution*, 1909–1919, Vol. I, 1921, pp. 132–3.

[4] *Ibid.*, p. 112.

For Australia we are in possession of the figures of the Census of Incomes taken in 1915.

The table below gives the distribution in these two countries.

	U.S.A.		AUSTRALIA.
	1910.	1918.	1914–15.
Population	92,200,000	104,200,000	4,847,300
Number of persons registered	27,945,190	37,369,060	1,876,009
Percentage of population included.	30·3	35·9	38·7
Income of the people, total.	30,529 m. dol.	58,079·7 m. dol.	£240,163,000
Income per head.	331 dol.	557 dol.	£49·5
Income per head of Persons included in Fiscal Statistics, in Budget Units.			
Up to 0·1% of pop. . .	118·1	85·6	78·4
0·1–0·2%	29·1	25·4	27·7
0·2 0·3%	18·9	17·8	—
0·3–0·4%	15·0	14·4	—
0·4–0·5%	12·9	12·4	—
Up to 0·5% of pop. . .	38·8	31·1	31·5
0·5-1·0%	9·4	9·4	10·3
1·0–2·0%	6·3	6·6	7·4
2·0–4·0%	4·5	4·6	4·8
4·0–10·0%	3·4	3·2	3·3
10·0-20·0%	2·4	2·3	2·4

A comparison of the distribution of incomes in these two countries on the one hand, and in Germany on the other, reveals the following points of difference:

(1) The incomes of the wealthiest 0·5 per cent. of the population in the two English-speaking countries are lower than in Germany; during the war, instead of having increased, as was the case in Germany, they have declined.

(2) The incomes of the 16 per cent. coming last in the table (4·0 to 20·0 per cent.) are definitely higher than in Central Europe.

For England all that is available are the returns of large incomes, subject to super-tax, which have been published since 1911–12. Unfortunately, therefore, the figures refer to a very limited number of persons. As a result, the following device had to be adopted. During the financial year immediately preceding the war, 1913–14, the number of persons assessed for super-tax was 14,008, or 0·03 per cent. of the population. We took the same percentage of the population for England in 1919–20 and for Germany in 1913 and 1919, thus obtaining comparable figures. In 1919–20 the number of persons assessed for super-

tax in England was much larger and formed 0·1 per cent. of the population; this supplies the other datum required for comparison. The results of our calculations are shown in the table below.

	England.		Prussia.	
	1913–14.	1919–20.	1913.	1919.
Population.	45,508,000	46,082,000	40,751,635	37,806,000
Total income of population.	£2,250 mil.	£3,900 mil.	22,927 mil. marks	34,340 mil. marks
Income per head.	£49·4	£84·6	563 marks	908 marks
0·03% of population.	14,008	14,185	12,682	11,637
Their income.	£175,605,000	£270,683,000	1,694·4 mil. marks	3,154 mil. marks
Their income per head.	£12,536	£19,082	133,610 marks	271,032 marks
Ditto in budget units.	253·8	225·6	239·9	298·5
0·1% of population.	—	46,082	40,752	37,806
Their income.	—	£422,805,000	2,650 mil. marks	4,996 mil. marks
Their income per head.	—	£9,175	65,024 marks	132,153 marks
Ditto in budget units.	122·0 [1]	108·5	115·5	145·5

[1] Approximate estimate.

Thus, before the war the incomes of the wealthiest few in England were somewhat higher than in Germany, but, whilst in Germany they have increased considerably during the war, in England, as well as in the United States, they have declined.

Such are the data available with regard to the distribution of income among the wealthy and well-to-do classes in capitalistic countries, representing about 60 per cent. of their total population. The analysis of these figures suggests the following conclusions.

(1) The available data with regard to the distribution of national income in advanced capitalistic countries point to a high degree of stability of that distribution both in space and in time. This fact is proof of the existence of a similar stability in the economic and social organisation of capitalistic society. Any considerable modifications in it are a matter of decades. It will be shown later that in the case of backward agricultural countries the curve of distribution is bound essentially to differ from that characteristic of industrial countries.

(2) The amounts of the incomes and their increase depend very little on changes in the distribution. The principal fact revealed by our data is that there exists a very close dependence of the increase in the incomes of the wealthy and well-to-do

classes, with the only exception of the wealthiest few, on the general growth of national wealth and the development of productive powers. Every class and every group in modern society entirely depends, for the raising of its standard of life, on the rate of increase of national income.

(3) Even the income of the wealthiest few, representing the first 0·5 per cent. at the top of the social scale, depends to a much greater extent on the growth of productive powers than on any changes in the distribution. It is obvious that the excessively high rate of growth at one end of the scale must have its counterpart in a corresponding reduction at the other, in this case among the working classes.

(4) The decrease in the incomes of the wealthiest few in the United States and in England during the World War serves to prove that their growth, in so far as it depends on the increase in the social and economic power of that particular group, is neither unlimited nor irresistible, and can effectively be held in check.

(5) The incomes of the middle classes, that is, of the 16 per cent. of the population included in the group from 4·0 to 20·0 per cent., expressed in terms of budget units, are higher in the younger oversea countries than in Europe.

(6) The average income per head of population is no abstraction, but a perfectly real quantity which has got constantly to be used in all investigation bearing on the development of productive powers and on social phenomena connected with the distribution of income.

As to the incomes of the remaining 20 per cent. who represent about 40 per cent. of the total population,[1] they belong to the poorer classes, about whose incomes fiscal statistics contain but little information.

Limits of income.	Percentage of population included.	Number of dependents to every person included.
Over 30,500 marks	0 0·07	1·99
9,500-30,500 ,,	0·07–0·32	2·02
3,000 9,500 ,,	0·32-2·0	2·29
900–3,000 ,,	2·0-19·5	2·17
Up to 900 ,,	19·5–39·3	0·92
Average for all population .		1·54
,, urban population		1·23
,, rural population		1·92

[1] The number of dependents to every individual included in taxation statistics varies as follows, according to the amount of income and the professional composition of the population. The figures used are those of Prussian income statistics for 1913.

Including them, we obtain the following table, showing the income distribution in budget units.

Percentage of population.	PRUSSIA. 1913.	SAXONY.[1] 1912.	U.S.A. 1918.	AUSTRALIA. 1914–15.
0 –10·0% . . .	5·6	5·7	5·5	5·8
10·0–20·0% . . .	1·9	1·9	2·3	2·4
20·0–30·0% . . .	—	1·3	1·7	1·4
30·0–40·0% . . .	—	0·9	1·1	0·5

[1] In Saxony the percentage of population included in taxation statistics exceeds 40 per cent., reaching 45·8 per cent. The extra 5·8 per cent. not included in our table have an average income of 0·5 budget units per head. In the U.S.A. the proportion is only 35·9 per cent., and in Australia 38·7 per cent.

As to the graphic presentation of the distribution of incomes, the following should be said. Obviously, had there been perfect equality in the distribution, the latter would be represented by a horizontal straight line, whose distance from the axis of abscissæ would thus remain constant. This, however, is not the case, and instead of a straight line we have a curve, whose slope depends on the degree of inequality in the distribution of incomes. The greater the inequality, the steeper the slope of the curve. In order to measure the degree of inequality represented by the curve, it is necessary to take the sum of the deviations of the incomes of all persons included in the register from the average income per head of population, and divide it by the amount of national income. The slope of the curve will thus be obtained from the following equation:

$$X = \frac{(D_1 - D_m) + (D_2 - D_m) + (D_3 - D_m) + \dots}{\text{Amount of National Income}},$$

where X is the measure or *coefficient of inequality* in the distribution, D_m — the average income per head of population, and $D_1, D_2, \dots$ — the actual incomes of the corresponding groups or persons.

By using this formula we find the following coefficients of inequality in the distribution of incomes for those countries for which the necessary figures are available:

	Coefficient of inequality.	Income per head of population.
United States	0·53	557 dollars
Australia .	0·64	241 ,,
Saxony . .	0·70	157 ,,

It would appear that there exists some definite connection between the poverty of the country and the degree of inequality in the distribution of incomes. Our tables have shown that the level of incomes of the wealthy and well-to-do classes of the population is very nearly the same in all capitalistic countries, but that, the lower we descend down the scale of incomes, the more marked are the distinctions between various countries. These distinctions are especially marked among the poorest classes, whose mode and standard of life would appear to be entirely determined by conditions peculiar to each country. Especially striking is the low standard of life of the poorest group of population in Australia. Hitherto this particular aspect of the problem of distribution had escaped attention, though in fact its social importance is very great. In order, however, to gain clearer insight into the process of distribution of incomes among these particular groups, it is necessary to have recourse to other sources of information.

In this connection the greatest interest attaches to the differences between the curves of distribution of incomes of urban population on the one hand, and of rural population on the other. The social and economic condition of the countryside is very adversely affected by the slow rate of development of the productive powers of the farming industry. While the incomes of townsfolk and their standard of life rise at a rapid rate, owing to the speedy growth of industrial production, the incomes of villagers, dependent as they are on the progress of farming, increase but slowly. The slowness of agricultural progress, as compared with that of industries in towns, was bound to create a great difference in the levels of economic prosperity and general culture of the towns on the one hand, and of the country on the other. The process of differentiation in this respect is well illustrated by French agricultural statistics.[1] The aggregate net income derived from farming in France was as follows:

	1882.	1892.	1911.
Net agricultural production, in million francs	10,418	9,602	11,946
Average net production per hectare	283 fr.	261 fr.	325 fr.
Indices of average net production	100	92	115
Income per head of population	694 fr.	770 fr.	909 fr.
Indices of income per head	100	111	131

In 1882 the average income per head of rural population in

[1] *Statistique agricole annuelle*, 1911, p. 326.

France amounted to 424 francs a year, while for the whole population it reached 694 francs. Since then, the income per head of the whole population increased in the proportion of 100—111—131, while the yield per hectare varied at a much slower and less regular rate, the indices being 100—92—115.

In order to make up, at least to some extent, for the difference in favour of the towns, farmers in Western and Central Europe, besides using every other means to raise the production of their industry, are compelled to have recourse to an extension of the area under cultivation per head of population engaged in agriculture, with a view to increasing the income from their farms. Since there is practically no room for such extension, except at the expense of the numbers of rural population, it is actually achieved either by the exodus from villages to towns and industrial centres, or by a fall in the birth-rate. As a result, the cultivated area per head of rural population increases continually. The process is made evident in the table below, compiled from French and German statistics :

Cultivated area per head of rural population.

France.		Germany.	
1882	1·50 hectares	1882 . . .	1·69 hectares
1892	1·53	1895	1·80
1911	1·67	1907	1·85

The exodus of rural population to towns and factories is a direct consequence of the fact that the technical development of farming lags far behind that of industry. In order to secure some share in the increase of national income, which is mainly due to increased industrial production, the rural population is compelled continually to seek improvements in the conditions of its own work and to extend the area under cultivation relatively to its numbers. Yet the increase in their income either lags behind that in the national income as a whole, or scarcely succeeds in keeping pace with it.

	Urban population Prussia.		*Berlin.*			*Düsseldorf district.*		
	1896.	1913.	1875.	1896.	1913.	1875.	1896.	1913.
Population . . .	12,750,141	19,635,425	826,341	1,641,285	2,026,491	1,387,119	2,167,051	3,568,663
Income per head in marks	...	740	709	805			418	656
Income per head in budget units .	1·37	1·31	2·34	1·98	1·77	1·01	1·10	1·17
Income per head of Persons included in Fiscal Statistics, in Budget Units.								
Percentage of pop.								
Up to 0·5% . . .	58·3	54·7	104·7	98·4	78·3	7·2	45·2	50·4
0·5–1·0% . . .	15·0	13·8	27·1	23·1	15·3	8·8	10·6	10·3
1·0–2·0% . . .	9·2	8·4	16·3	12·9	9·0	6·0	6·8	6·5
2·0–4·0% . . .	5·7	5·8	9·7	6·9	5·7	4·2	4·4	4·5
4·0–10·0% . . .	3·5	3·3	5·1	3·8	3·7	3·0	2·5	3·1
10·0–20·0% . .	2·0	2·3	3·5	2·5	2·7	2·1	2·0	2·3
20·0–30·0% . .	—	1·5	2·7	—	2·1	1·7	—	1·7

The figures of the growth of incomes of industrial and rural population in Prussia are very characteristic in this respect. The figures for urban population refer to the whole country and to two important industrial centres—Berlin and Düsseldorf.

It may be seen from this table that the urban and industrial population of Prussia increased continually, while its money income grew at a faster rate still. The average income in terms of money rose 33 per cent. in seventeen years. Yet the real income, in terms of budget units, declined. It shows a definite falling-off among the wealthy and well-to-do groups and is stationary in the case of employees and manual workers. The decline is especially marked in Berlin, with its rapidly growing population. In the Düsseldorf district, the centre of the heavy industry, on the other hand, there is a noticeable rise in the incomes of industrial population, especially in the case of the wealthy and the well-to-do classes.

The process is quite different in the case of rural population.[1]

	Rural population of Prussia.		*Königsberg district.*		
	1896.	1913.	1875.	1896.	1913.
Population	18,599,142	21,116,210	1,047,408	1,178,231	904,765
Income per head, marks	305	398	299	330	452
Income per head in budget units . . .	0·75	0·71	0·99	0·81	0·80
Income per Person included in Fiscal Statistics, in Budget Units					
Up to 0·5% of pop. .	16·7	20·7	16·7	20·9	27·2
0·5–1·0%	5·6	6·0	6·9	7·0	8·4
1·0–2·0%	3·9	4·2	4·9	4·5	5·4
2·0–4·0%	2·9	3·0	3·3	2·9	3·3
4·0–10·0%	2·1	2·2	2·0	1·9	2·0
10·0–20·0%	—	1·4	1·4	—	—

[1] In this, as well as in the preceding table, the budget units used are calculated for the whole population. As a result, the divergence in the curves of distribution is somewhat exaggerated. Should the units be calculated for each group and each district separately, the divergence would be reduced considerably. For Prussia in 1913, for example, the following series would be obtained :

	Whole pop.	Urban pop.	Berlin.	Düssel-dorf district.	Rural pop.	Königsberg district.
Up to 0·5% of pop.	39·1	41·6	44·2	43·3	29·2	33·8
0·5–1·0% . . .	9·5	10·5	8·6	8·8	8·5	10·5
1·0–2·0% . . .	6·4	6·4	5·1	5·6	5·9	6·7
2·0–4·0% . . .	4·1	4·4	3·2	3·8	4·2	4·1
4·0–10·0% . . .	2·8	2·5	2·1	2·6	3·1	2·5
10·0–20·0% . .	1·9	1·8	1·5	2·0	2·0	—
20·0–30·0% . .	—	1·1	1·2	1·5	—	—

The rural population of Prussia, as a whole, tends to increase, though at a slow rate. On the other hand, however, in the purely agricultural district of Königsberg the population has declined considerably during the last few decades. As to the incomes, the increase in their nominal amount almost keeps pace with the growth of urban incomes: in seventeen years they rose 30 per cent. Their real amount, however, remains stationary. It would appear, therefore, that the exodus of surplus population does little to improve the situation.

Thus we see that the problem of agrarian over-population in Europe is no less urgent than that of the condition of industrial labour. The connecting link between the two is the exodus of rural population to towns and factories.

Such are the principal conclusions, suggested by the analysis of the available statistics bearing on the distribution of incomes in several countries at the end of the nineteenth and the beginning of the twentieth century. It would be extremely interesting to compare the distribution of incomes at the beginning of the present century with that of a hundred years ago, but the only figures available for making a comparison with so remote an epoch are those for England in 1801; next come Prussian statistics from 1853 onwards. They are given in the table below:

	England.	Prussia.	
	1801.	1854.	1913.
Population	8,893,000	14,812,500	40,751,635
Number included in fiscal statistics	320,759	5,226,136	16,017,048
Percentage included	3·61	35·3	39·3
Income of population	£230 mil.	3,233 mil. marks	22,927 mil. marks
Income per head	£25·86	218 marks	563 marks
Income per head of Persons included in Fiscal Statistics, in Budget Units.			
Up to 0·1% of pop.	114·0	55·7	115·5
0·1–0·2%	31·2	20·9	30·4
0·2–0·3%	24·4	15·6	20·4
0·3–0·4%		13·5	16·0
0·4–0·5%	. .	11·5	13·4
Up to 0·5% of pop.	38·4	23·4	39·1
0·5–1·0%	9·1	10·2	9·5
1·0–2·0%	4·5	4·9	6·4
2·0–4·0%	2·6 [1]	3·5	4·1

[1] For the group from 2·0 to 3·6 per cent.

The only difference between the curves of distribution based on this table, and the corresponding curves for the beginning of

the twentieth century is that, in the case of the groups included in the interval from 1·0 to 4·0 per cent. of the population in 1801 and 1854, the incomes were somewhat smaller than on the eve of the World War. It is worthy of note that the incomes of the highest group (0–0·1 per cent.) in England in 1801 are very nearly equal to the incomes of the same group in Prussia, Saxony and the United States in 1910–13. This serves to prove that the curves of distribution of incomes are liable to change in course of time. The changes are mainly due to the growth of urban, at the expense of rural, population. The concentration of incomes becomes certainly more marked, but it is not confined to the wealthiest groups alone, representing some 0·5 per cent. of the population. In fact it involves the groups adjoining them down the scale, and representing anything up to 4 per cent. or, perhaps, even 10 per cent. of the population. The accumulation of incomes, however, proceeds at a very slow rate.

The lack of material, unfortunately, prevents us from going beyond these tentative conclusions and attempting any further generalisations bearing on the character of these secular changes in the distribution of national income.

S. N. PROCOPOVITCH

REVIEWS

Memorials of Alfred Marshall. Edited by A. C. PIGOU. London: Macmillan & Co., Limited, 1925. Pp. ix + 519. 8vo. 12*s.* 6*d.* net.

IT is no easy task to give an adequate picture of Alfred Marshall to anyone who has not known him. His writings do not exhibit many of the most attractive traits of his personality. His strong dislike of controversy, and his fear of error, make much that he has written seem over-cautious; his criticisms seem too mild. He also was very conscious, perhaps too conscious, of the general attitude of his probable readers, and adjusts what he says to meet this. Thus the reader ought to bear in mind the date at which any article was published. If he does, he will realise that some things, which seem obvious now, required to be said with a sort of half apology in the Victorian atmosphere of a generation or more ago. The younger generation of to-day, who have, through their teachers, got the benefit of Alfred Marshall's remarkable contributions to economic science, do not, when they first read his original writings, appreciate them sufficiently. They do not realise how much was an original contribution.

This memorial volume, ably edited by his pupil and successor, Professor Pigou, will, however, help the present generation to a better understanding. First and foremost it contains the Memoir by J. M. Keynes, which is already familiar to readers of the ECONOMIC JOURNAL. It needs no further praise here. This is followed by some short reminiscences by other persons. These add a few details to the picture. Then come a series of selections ranging from a paper in 1872 on "W. Jevons' Theory of Political Economy" to one in 1917 on "The Equitable Distribution of Taxation." Many of these are already familiar to students, but they are well worth re-reading; for there is a personal element in some of them which has been suppressed in the longer books. The evidence before various Royal Commissions—by no means the least important part of Marshall's work—is not reprinted here, but there is hope that this will be undertaken. The remainder (about 125 pages) of the volume contains letters. Would that there had been more—many more! They are very varied and very characteristic. Many others ought clearly to be published.

The injunction in his will that controversial matter should be suppressed is possibly a bar to the publication of some of the most interesting ones, but there must, one would suppose, judging from the selection here given, be many others which would instruct and delight the large body of persons who had the advantage of being his pupils or his admirers. How illuminating is a passage like this in a letter to a schoolboy :—

> "From six to seventeen years I studied practically nothing but classics. I then obtained a place in the school which entitled me to a 'close' probationary classical fellowship at Oxford. (These things are abolished now.) I spent the next five years mainly on mathematics, and the next three mainly on philosophy. I have forgotten my mathematics and philosophy as well as my classics; but I am intensely grateful to them. And I am not very grateful to my classics."

Or again, this which opens a letter to a rich man who wanted advice as to his expenditure during the war.

> "My favourite *dictum* is: Every statement in regard to economic affairs which is short is a misleading fragment, a fallacy or a truism. I think this *dictum* of mine is an exception to the general rule; but I am not bold enough to say that it *certainly* is."

The chief characteristics of Alfred Marshall were that his interests were moral rather than intellectual, concrete rather than abstract. Yet he never let his intellectual processes be confused by any moral considerations, nor did his interest in facts ever diminish his remarkable capacity for abstract theory. His attitude to his pupils was one of affection. He took them seriously; he drew them out; he never preached to them; he trusted to their being decent human beings who would try to develop their intellectual capacities for the common good. Above all, he was never dull.

C. P. SANGER

Legal Foundations of Capitalism. By JOHN R. COMMONS, Professor of Economics in the University of Wisconsin. (New York: Macmillan. 1924. Pp. 394.)

THE relation between Law and Economics has certainly not begun to receive anything like the scrutiny it would seem to call for. How far is Law the mere formulation or outcome of con-

temporary economic needs, how far does it positively control or limit economic action, and how do the several ages or countries compare with one another in these respects—this is a wide field which has hardly as yet been entered upon.

From the economists of the University of Wisconsin, however, have come two remarkable studies, Professor Ely's *Property and Contract* in two volumes in 1914, and, ten years afterwards, this substantial treatise of Professor Commons. The former draws its examples from all civilised countries, but gives most space to American legal decisions; the latter almost confines itself to American decisions, leading up to the pronouncements of the United States Supreme Court, " the first authoritative faculty of political economy in the world's history " (p. 7).

In his Preface Professor Commons penitently remarks, with respect to his book of thirty years ago on the *Distribution of Wealth*, that he there " tried to mix things that will not mix." The phrase recurs to one sometimes as one is honestly and heavily trying to plough through this present book. Professor Commons brings within his range not only a mass of decisions of State and Union courts, but also the whole of the recent literature on economic theory, the whole psychological discussion and all the divers strains of recent thought in philosophical jurisprudence—at any rate all those represented in America and many of their European predecessors or contemporaries. And he certainly does not go out of his way to spare his readers trouble. His writing is abstract, compressed, full of specialist phraseology. Thus he begins:

> " Economic theory deals with two concepts, Value and Economy. Abstract reasoning regarding these concepts rests ultimately on mathematical concepts of quantity, time and energy. The three are inseparable; for quantity and time are dimensions of energy."

And so he continues.

To review such a book at all completely would call for an amplitude of knowledge as well as of time—a " dimension of energy "—which the present writer has certainly not at his command. But it may serve a useful purpose if one tries to disentangle the central body of legal fact round which the whole argument is intended to turn.

The Fourteenth Amendment to the United States Constitution, adopted in 1868, laid down that no State should " deprive any person of life, liberty or property without due process of law."

It fell, therefore, to the Supreme Court, on appeal, to define "due process of law," and also, and even more vital, "liberty" and "property." Professor Commons' one large outstanding fact, around which his whole work is in a sense a commentary, is that the Supreme Court between 1872 and 1897 gradually but completely transformed the legal definition of each of them.

In the Slaughter-house Cases (1872) the Court held that the grant by a State of a monopoly to maintain slaughter-houses did not deprive other butchers in the city either of "property" or "liberty." For by "property" was meant physical things held exclusively for one's own use; the State had not actually deprived the other butchers of their yards and pole-axes. Professor Commons seeks—I am not sure how helpfully—to elucidate this by saying that, according to the decision, "property" meant "use value" and not "exchange value." Similarly "liberty" was interpreted by the Court in the light of the historical fact that the amendment had been adopted immediately after the abolition of negro slavery: it therefore meant, the Court declared, simply freedom from bodily servitude.

Eighteen years after, however, in 1890, in the Minnesota Rate Case, the Supreme Court held that "property" consisted not only in physical objects but in the expected earning power of those things; and seven years later, in the Allgeyer Case, "liberty" was defined as embracing, not only freedom from the physical restraint of the person, but also "the right of the citizen to be free in the enjoyment of all his faculties . . . to live and work where he will . . . to earn his livelihood by any lawful calling," and so on, including complete freedom of contract. That, resting upon these decisions, United States Courts declared void large masses of State legislation of the nature of Factory Acts—such as had become law without difficulty in countries with parliamentary government—is, of course, too well known for comment.

These decisions were the high-water mark of nineteenth-century individualism, as it arose from the eighteenth-century conception of "nature," combined with the opportunities for deriving income from the possession of physical goods which had been brought by modern means of communication and transport. But the tide did not remain at high water. By a series of decisions between 1898 (Holden *v.* Hardy) and 1916 (Bunting *v.* Oregon) the embargo has been removed at any rate from State legislation on the hours of labour. And this has been rendered possible by the introduction of a doctrine, which, if not new,

certainly began to be applied in new ways—the doctrine of " the police power " of the State. I do not find this systematically discussed anywhere in Professor Commons' book. But in the chapter on the subject in Professor Ely's book, I find a judicial dictum of the most far-reaching scope. It proceeds from Mr. Justice Holmes; and it may have a special interest to English readers, since Mr. Holmes is not only the son of *The Autocrat at the Breakfast Table*, but also the intellectual father of F. W. Maitland. In the Noble State Bank *v.* Haskell Case (1911), Mr. Holmes expressed the opinion of the court thus:

> " The police power may be put forth in aid of what is . . . held by the prevailing morality or the strong and preponderant opinion to be greatly and immediately necessary to the public welfare."

I am not sure that Professor Commons quite distinctly recognises the full bearing of this new development. May we not generalise thus? The adaptation of law to social needs might conceivably be brought about by definitions which limit property rights. But ever since the Roman law, with its sharp conception of " dominium," began to influence the modern mind, the trend of legal interpretation has been towards the recognition of the completest right of individuals to make use of themselves and of the forms of wealth under their control. It has preferred to think rather of " absolute " property subject to some right of another—subject to a " servitude " to that extent—rather than of two persons each, but in different senses, " owning " the property. And so both in America and England pretty absolute individual property rights have come to be recognised; but the necessary adaptation to social needs is reached by legislation; in the English case requiring no doctrine to support its omnipotence, in the American case requiring the support of the doctrine of the " police power " to enable it to get over the barrier of the Constitution. Commercialised and democratic countries will equally " get there "; but America, with its Constitution, may enjoy (or suffer from) what statisticians call " a time lag."

To pass from these large forecasts to one or two small matters in the course of Mr. Commons' exposition. What the common-law courts under Coke " accomplished " in the destruction of the powers of the craft companies in England (p. 228) cannot, I am afraid, be said to have " stayed accomplished," or Adam Smith would not have therefore thought it necessary in 1776 to cry, " Break down the exclusive privilege of corporations." And if

one looks up Cicero, *de Republicâ*, and considers the date and influence of Bodin's famous work, and sees how Locke uses the term *Commonwealth*, one would, I think, somewhat modify what is here written (pp. 222, 229) about Sir Thomas Smith.

WM. ASHLEY

Economic Problems of the Mining, Marketing and Consumption of Anthracite and Soft Coal in the United States: Facts and Remedies. By EDWARD T. DEVINE. (American Review Service Press, Bloomington, Illinois. 1925.)

THE nineteenth century built its industrial progress and achievement upon coal. The twentieth century struggles to prevent that foundation subsiding and letting down the edifice. Operators, miners and consumers appear profoundly dissatisfied in every coal-producing country. There must be some general cause for results so similar, and books like that under review greatly help diagnosis. The writer, a member of the U.S. " Fact-finding " Coal Commission of 1922–23, sets out frankly, simply and lucidly the facts of the industry, its ills and their possible cures. Seldom are the complex factors in industry made so easy of comprehension; still more seldom with so just a balance and so humane an outlook. The author weighs fairly the claims of royalty owners, employers, workmen and consumers, and if he holds that the workmen and consumers have a primary interest, while that of the royalty owners, employers and shareholders is secondary, few will disagree.

Such a book cannot be read without continued comparison with British conditions. Thus some very striking facts emerge. First, there are two coal industries in the States, anthracite and bituminous, differing importantly. Second, enormous accessible supplies of bituminous coal exist, making over-development the most important factor in that industry. Third, the United States coal industry is practically self-contained. Its imports and exports are negligible. Therefore while the price of coal affects the competing powers of consuming industries in world markets, the United States coal industry is free from that foreign competition in the disposal of its product which so vitally concerns Great Britain.

Anthracite coal is present only in a small portion of Pennsylvania, and the ownership, operation and transportation of a large part of this natural monopoly is concentrated in a few powerful companies, fully alive to their community of interests

and co-ordinated by common fiscal agents—"the anthracite combination." This is a comparatively recent condition, for as late as the end of the nineteenth century the anthracite industry was as over-developed as is the bituminous to-day. Then the chaotic, unregulated, troubled industry was taken in hand by bankers and railwaymen, and the earliest, most compact and most typical of American economic combinations created. The combination keeps production at a low level and prices steadily rising. But it has also stabilised the industry, regularised employment and given guaranteed qualities of high-standard fuel.

The main difficulties in the anthracite industry arise from the existence and policy of this combination. In the bituminous industry the difficulties arise largely from the absence of such a combination. Over-development, cut-throat competition, lack of organisation and a policy, prevent the industry at present paying regularly proper interest on capital, giving satisfactory conditions of employment, or maintaining a steady and sufficient supply of satisfactory fuel. While the annual production of anthracite has remained at about 90,000,000 tons since 1910, and the pit-head price per ton has increased from $2 in 1910 to $6 in 1923, the annual production of bituminous coal has increased by 150,000,000 tons (*i.e.* 37½ per cent.), and its price, which rose steadily and rapidly from 1910 to 1920 (from a little over $1 to $3·75), then fell to $3 in 1922 and to $2·68 in 1923.

In both industries the social conditions of the workers are very unsatisfactory and the accident rate deplorable. That rate should be lower than in countries like England, Belgium and Germany, as the American conditions (shallow workings, thick level seams, easy ventilation, absence of heat due to depth) are much more favourable. But the rate is the highest in the world. Many reasons are given for this; *e.g.* the very extensive use of machinery and electricity; but the main fact is, says Mr. Devine, that safety is expensive and that it is a bother to be careful. Safety legislation is a matter for the individual States. In most cases the laws are out of date and inadequate, while the lesson we have learned so well, that the effectiveness of industrial regulation depends upon the efficiency of its administration—*i.e.* upon the Inspectors—is still ignored in America.

In efficiency of working the two American industries show different results. In the anthracite field there is a steady drop in output. This is mainly the effect of passing from better (thicker and shallower) to worse (thinner and deeper) seams,

and it is not expected that future improvements in methods will do more than offset worsening physical conditions. In the bituminous industry the law of diminishing returns is not yet in operation, and improvements in methods have increased output from 2·56 tons in 1891 per day to 4·48 tons in 1923 per man employed.

In Great Britain the output has fallen steadily since 1891 and is now about 18 cwt. per man per day.

Industrial relations are very unsatisfactory. In the anthracite industry the operators and the miners are well organised, but strikes, local and general, are frequent. In the bituminous industry neither the operators nor the men are well organised, and there is at present a clear division between Union fields and Non-Union fields. The former are handicapped by the conditions laid down by the Jacksonville agreement of 1924 with the Unions, and are being put out of action by the latter, where lower wage rates give a cost of production with which the Union fields cannot compete. Only terms of warfare can properly describe relations in the bituminous industry.

Profits are difficult to ascertain, but the indications are that they have steadily increased in the anthracite industry, both absolutely and relatively to the increase in wages and other working expenses. In the bituminous industry profits are as irregular and uncertain as employment and wages, but they fluctuate about a norm which is comparable with that of corporations in other industries in the States, and certainly do not show the tendency of anthracite profits to steady and rapid rise.

The acknowledged ills are, in the anthracite industry, restricted output and high prices, in the bituminous industry irregularity of employment, high prices at times of scarcity, uneconomic employment of capital and over-production. Both industries suffer from high accident rates, unsatisfactory working and living conditions for the miners, bad and in some cases murderous industrial relations. In all these matters it may fairly be said that conditions in Great Britain are better, without being satisfactory.

The portion of the book devoted to suggested remedies is the most interesting and the most disappointing. It is always easier to state evils than to cure them, and most of the cures consist in hopes and exhortations rather than recommendations for definite action.

Certain panaceas the author puts aside, at all events at present. These are nationalisation, price-fixing, unrestricted

combination, trustification, compulsion in industrial relations—and "laisser-faire."

For monopoly and profiteering in the anthracite industry the remedy is taxation and regulation by the Government and the use of substitutes by the consumers. For the over-development and consequent irregularity of operation and short working year in the bituminous industry, storage, selling on contracts, consolidation of undertakings under public supervision are prescribed. (When we remember that there are enough bituminous miners in the industry to produce 25 per cent. more coal than has ever been used in any year, and that want of market causes unemployment averaging sixteen six-day weeks a year, it is clear that a large number of miners will have to leave the industry if regularity of employment is secured.)

More specific are the recommendations that the Inter state Commerce Commission should undertake a complete overhaul and revision of freight rates and routing arrangements, should inaugurate a system of licences, issued with attached conditions, for moving coal inter-state, securing economic transportation, proper description of qualities and the like. The Commission should put an end to secrecy by systematically collecting and publishing full particulars of production, costs, prices, profits, etc., and should secure the differential taxation of royalties to impound the "unearned increment." It should deal with the conditions under which combination of operators should be allowed.

Mine workers should be free to combine—and free *not* to combine. The Union should be prepared to settle even the gravest question without appeal to economic force.

The author thinks that improvement in industrial relations might come from the miners adopting a policy, not only of more wages, but of more satisfaction, more freedom, more security, in brief more happiness, from the work itself. The Union should become an organisation for mining coal as well as an organisation for maintaining the wages and rights of miners. This would end "ca' canny" and disloyalty. But the author sees that such a change is not possible, nor even desirable, so long as coal-mining is a private exploitive enterprise under external financial control. The principle underlying all the recommendations is that the coal industry is affected to an unusually large extent by a public interest. Therefore, while the industry should run itself, it should do so under conditions securing the furtherance of that interest. So, on their side, the corporations must place

regular, efficient and inexpensive service to the public in rational supremacy to "return to investors." Such considerations as these make necessary democratic organisation and operating, national integration without "trustification," publicity and federal supervision. The creation and maintenance of a healthy, strong and educated public opinion is vital.

The relevance of this diagnosis and treatment to our own country is obvious. Our industry suffers from the same evils, in most cases less acute but producing greater effect because our general conditions of wealth, resources and industrial prosperity are less fortunate than the American.

The recommendations of the Royal Commission on the Coal Industry, now anxiously awaited, must, so far as can be seen, take the character of those mentioned above. But can any or all of them bring about a real improvement?

As indicated at the beginning of these remarks, there must be some general cause for results which are universally felt. The causes operating in coal production are quite clearly operative, more or less, in other industries. Are we right, in Britain and America, to confine our urgent inquiries to the Coal Mining Industry? Why is it that, except in some luxury industries like distilling, brewing, tobacco-producing, there is widespread the same phenomenon of boundless productive capacity and severely restricted use? Capacity to produce and inability to buy what is or might be produced are the characteristics of our industrial life to-day.

The author of this book sees clearly that behind the coal companies, "as a rule, are the bankers, the financial leaders of the nation, who by their control of credit are in a position to dominate the labour policy of the mining as of the other industrial corporations."

This suggests that the real subject of investigation is the methods by which production is financially controlled—in other words, instead of inquiring into the symptoms shown by this or that industry, the general causes creating pathological symptoms in all industries should be sought. The ironic paradox which was becoming evident before the war, that we can produce but cannot buy, may well rest upon some maladjustment of the functions of finance, the supply and distribution of purchasing power.

The problems underlying industry in general need re-examination. Dealing with the symptoms will not help, but not the least virtue of Mr. Devine's admirable book is his realisation that the

underlying problems are there although he deals mainly with their results. His justification lies in the fact that the abounding prosperity of America still obscures the need there of profound study of industrial finance. For us in Europe that justification is lacking.

E. D.

The Financial Crisis of France. By the HON. GEORGE PEEL. (London: Macmillan. 1925. Pp. ix + 323. Price 10*s*. 6*d*. net.)

A FRENCH critic is better qualified than an English one to judge of the admirable accuracy of Mr. George Peel's book, and also, possibly, to appreciate the humour of his pronouncements on our financial policy.

"Nor was the subject spiced by the presence of any very commanding personalities. There was no Colbert." This judgment will scarcely be gratifying to the twenty or thirty Finance Ministers who have followed one another since the war, but its soundness cannot be denied. French history records the names of many illustrious financiers besides Colbert—notably Thiers and Léon Say after the war of 1870–71—but fortune has not favoured her in this respect at the present critical hour in the nation's life. There was, however, one man on whom she could count; one who had achieved a world-wide celebrity through his political misfortunes, which were undeserved, even more than by his financial reforms. To him Mr. Peel devotes an entertaining chapter, "The Return of M. Caillaux," which in some ways recalls the one on Clémenceau in the celebrated work by Mr. J. M. Keynes. "In his novel *Coningsby* Lord Beaconsfield described the character of Sidonia. Sidonia was by hereditary talent prescient of the great financial future of Europe, confident in the fertility of his own genius, in his original visions of fiscal subjects, and in his knowledge of national resources. He held relations with all the clever outcasts of the world. Suppose France possessed Sidonia! Would it not be worth while recalling him for cash?"

But the book stops short at the moment of M. Caillaux's fall after his brief but brilliant spell of office. This is doubtless the reason why Mr. Peel does not give us his own opinion of the Minister's fiscal programme. He confines himself to pointing out the dangers which threaten the finances of France. These "adverse factors" are five in number.

(1) The almost total loss of her foreign securities.

Before the war these yielded an income of about 2000 million

francs, but owing to sales and losses the revenue from these sources is estimated to be now only 250 or 300 millions of gold francs.

The author deserves high praise for having put this loss in the forefront of his list. The present writer has frequently maintained that this is one of the chief causes of the depreciation of the franc. But, unhappily, instead of seeking to remedy this state of things by encouraging the acquisition of new foreign securities, those in authority have pursued the policy of checking and penalising investment abroad, the true financial interests of France being thus sacrificed to the fiscal advantage of preventing the flight of capital. It takes flight, notwithstanding, and as the amounts lost are not known and never return to France, they have not the salutary effect on the exchanges which resulted from the open investments of former times; in fact, they have a reverse effect.

(2) France's debts to her ex-allies.

Mr. Peel's opinion on this matter is particularly interesting to Frenchmen, for it is not only in agreement with public opinion in France, but is expressed with a courage not usually met with in the foreign Press.

"From the point of view of equity, it would be intolerable that if Germany failed to make the Dawes payments, Germany, the aggressor, should go free, while France, the victim, should continue to pay the debts incurred by her in the common interest of civilisation. France will always hold herself morally free to associate her payments with her receipts from Germany."

But what will these receipts from Germany amount to? Our author is not very encouraging on this question. He regards the answer as more or less uncertain and does not think that in any event the share of France can exceed £27 million, which sum will be entirely absorbed by the payments due to the United States and Great Britain.

It is my personal belief that the best we can hope for is not to pay more than we receive, but it must be recognised that if this prospect is the best that France can hope for it is bitterly disappointing, since she will thus be left to bear the burden not only of all her war expenses but also all those of repairing her devastations.

(3) The enormous dimensions of her internal debt, the service which already amounts to more than half of the total budget.

On this point the author, while recognising that from time to time reductions have been made by methods concealed from the

public, shows that their effect is neutralised by the loans which still continue to be raised. It is known that the creation of a sinking fund is down for consideration by the Chamber. It is my own conviction that such a step would be against the public interest at the present time, in view of the fact that the funds required for the purpose would necessitate additional taxation; and on this point Mr. Peel's opinion would have been welcome.

(4) Military expenditure, which, according to Mr. Peel, had already before the war compromised the financial interests of France by its swollen dimensions, and exceeded that of any other country.

I agree with this judgment for the past, although it is contradicted by the French Nationalists; but at the present moment, leaving out of account the unhappy wars being carried on in Morocco and Syria, the total amount of military and naval expenditure, in gold values, is much below the pre-war figure. Mr. Peel himself admits that the effective strength of the army has been reduced from 766,000 to 425,000 men.

(5) Finally ("last, not least"), the depreciation of the franc.

On this point Mr. Peel is as consoling as our official economists and financiers, for he says, "That France can establish the gold standard in the future is surely not in doubt." It is a pity that this statement cannot be posted up on the walls of the Bourse in Paris: we should very soon see the pound sterling go down to 75 francs. But after giving us this assurance Mr. Peel adds that "the gold standard postulates, but does not produce, sound finance; it will follow upon the stabilisation of the franc." And how is the franc to be stabilised? Should we adopt the view of Mr. Keynes and a very few French economists, including the present writer, and stabilise it at one-fifth of the value of the gold franc? On this point, again, Mr. Peel's opinion would have been most valuable, but he does not give it.

Let us then content ourselves with recording his benevolent and flattering conclusion: "None of these difficulties should prove too much for France, and therefore with time and courage they will all be overcome."

What is somewhat disturbing, however, is that, according to Mr. Peel, France's financial crisis is closely bound up with her national and economic history, and had already begun in the days of Roman Gaul! If this is so in fact, it is evident that a state of things which has already lasted for twenty centuries will not be easily remedied. Our Ministers of Finance could not fail to take advantage of so tempting an excuse.

Although perhaps the quotations are already too many, my feeling is one of regret that it is not possible to quote the whole book. I should like to see it translated into French, with the last chapter brought up to date. Mr. Peel could probably have written it in French, to judge by the astonishing acquaintance he shows with our literature, including the works of various old French writers, whence he has taken the words of wisdom which form the headings of his chapters.

CHARLES GIDE

The Economics of the Gold Standard. By D. T. JACK. (P. S. King & Son, 1925. 3*s*.)

THIS book tells us very little about the economics of the gold standard. It defines what a gold standard is, states the quantity theory of money, describes the relation between bank deposits and reserves, and sets out to explain the action of bank rate. It has something to say of the recommendations of the Cunliffe Committee and the Bradbury Committee. It ends with a discussion of the sufficiency of the gold supply for future monetary requirements.

But on the disadvantages either of unstable foreign exchanges or of unstable prices it is silent. A reader not already acquainted with these matters might be left wondering either why there was ever any delay in raising sterling to any desired value, or why any one ever wanted to return to gold. Mr. Jack does not mention the harmful effects of deflation, or explain how or why an exchange risk hampers international trade.

That is perhaps no more than to say that the book is not very appropriately named. It deals not with the economics but with the machinery of the gold standard. Unfortunately it does not do this very well. Mr. Jack adheres to the very common but fallacious view that the principal function of the discount rate in regulating the gold standard is to move floating balances from one country to another. He gives, it is true, a halting assent to the theory of the action of bank rate on the price level, but does not seem either to appreciate the manner in which it works or to see how little the movement of liquid balances can do without it.

Mr. Jack is very inaccurate in details. He has invented an entirely imaginary Currency Note Department which is in a position to "demand" repayment of advances from the Treasury. He supposes that the prohibitions of melting gold coin and of exporting gold from this country were in force from the beginning

of the War. He appears to be unfamiliar with practice in the use of bills of exchange, for he thinks that when a payment is made in the course of international trade it is normally expressed in the currency of the creditor's country (p. 30). And he imagines that a bill is returned after acceptance to the drawer in order that he may get it discounted.

On p. 4 free coinage of gold and free melting of gold coin are essential conditions of a gold standard; on p. 23 the gold standard does not involve a gold coinage for circulation. On the other hand he consistently treats as a condition of the gold standard that "all other forms of money should be convertible into gold on demand." It would seem to follow that the United Kingdom has never had a gold standard.

R. G. HAWTREY

Monetary Stability. By J. R. BELLERBY. (Macmillan & Co. 1925. 7*s*. 6*d*.)

READERS of the ECONOMIC JOURNAL will remember Mr. Bellerby's article on *The Monetary Policy of the Future*, which appeared in June 1924, and in which he contrasted two alternative forms of stabilisation of prices. On the one hand, there may be a prescribed normal price level, measured by a selected index-number, and the currency may be so managed as always to correct any material divergence from this prescribed normal. Or, on the other hand, there may be no such normal price-level, but currency policy may be directed to correcting from time to time any inflationary or deflationary tendency that may make itself felt and may threaten a disturbance of the equable course of trade.

Mr. Bellerby's new book is an elaboration of the discussion of these two alternatives. The former he calls the constant price normal system; the latter, in that it involves the adoption of other tests of stability besides the price-level, he calls the "composite" system.

He compares successively the probable effects of the two systems in various directions, and he finds the balance of advantage unequivocally on the side of the fixed price normal. The composite system does not secure justice between the parties to long-term pecuniary obligations, and, what is more important still, it may permit variations in the value of money, which necessitate revisions of wages from time to time at the cost of outbreaks of industrial disputes and unrest. He supplies statistical confirmation of the connection between industrial disputes and monetary instability, as well as a theoretical argument.

Mr. Bellerby also discusses the relative ease of application of the two systems. And here likewise he finds advantages in the fixed price normal, despite the wider discretion and greater elasticity characteristic of the rival system. He points out that the knowledge that the central bank is aiming at a known price level will tend to make its changes of bank rate more immediately effective, because the psychological reactions upon the mercantile and financial community will be reinforced. And turning to the international control of credit contemplated by the Genoa Resolutions, he shows that the existence of a fixed price normal in one country would make the task of another country in stabilising the exchange with it substantially easier.

One difficulty of the fixed price normal he does not discuss; that is the effect of non-monetary causes upon any possible price index. An index-number is bound to give considerable weight to commodities of which the supply depends upon crop conditions, such as cereals or cotton. And the prices of materials and still more of manufactured products are liable to be affected by changes in processes. Tariff legislation is another complication.

Perhaps the principal recommendation of the composite system is that it avoids being misled by extraneous disturbances of this kind. For it takes account of symptoms, such as employment and the activity of markets, which give guidance independently of the price level.

The right solution would seem to be to take the fixed price normal as the primary indicator, but to make it subject to revision at the discretion of the central banks to allow for the non-monetary influences that may be found to be at work.

Mr. Bellerby hopes to find help for the central bank in dealing with a period of depression from a Government policy of pressing forward the execution of public works. But he is clear-sighted enough to see (as some advocates of that policy do not) that the additional public expenditure must be met, if it is to improve employment, not out of increased taxation, " but by the creation of greater purchasing power through increased borrowing at the bank." In other words, the policy is to be merely a pretext for an expansion of credit or inflation.

The book is an interesting and useful contribution to the process of monetary reform, at a time when the restoration of the gold standard has brought the policy of stabilisation in accordance with the Genoa plan into the realm of practical measures.

R. G. HAWTREY

The Confessions of a Capitalist. By ERNEST J. P. BENN. (Hutchinson & Co. Pp. vii + 287.)

LET me be candid—I started with a prejudice against Sir Ernest Benn, derived from certain articles in *The Times*, in which he called for a supply of "sound" economic text-books, written with a single eye to the defence of Capitalism against its adversaries. It was not that I grudged Sir Ernest keeping his end up, but that I resented the suggestion that it is the business of the economist to defend Capitalism, as well as the tactical folly of supposing that you make a strong case stronger by attempting to conceal that it has its weak points. And now Sir Ernest has asked me to tea, and we have had a good long chat over his study fire (for that is what I think any reader of this book must feel has happened to him), and I found him, I need hardly say, a very straight and pleasant and in many ways a very sensible man. There was only one moment when he made me feel really uncomfortable, and that was when he divided economists into four grades according to the staunchness of their advocacy of the Capitalist faith, and I knew that I should come out, if not in the lowest class, yet not very far away.

Sir Ernest had some good stories to tell of his youthful struggles and savings and business adventures, and threw off some very shrewd comments on the art of being an employer and on things in general. Here are one or two of his sayings which I managed to jot down. "There are some who find it impossible to move from one town to another without a shower of telegrams or a string of taxi-cabs." "The girl or the youth who is penniless can seldom play a game of tennis without losing a ball." "Advertisers are now discovering that the funny advertisement defeats its own object." "I have several times lately kept a note of the details of one day's work, and I have been driven to the conclusion at the end of each day that I have done nothing but say 'Yes' and 'No' to a large number of people." He put very clearly and forcibly a number of propositions about the nature of business profits and their connection with the risks of loss—propositions which, I was bound to agree with him, are insufficiently attended to by his Socialist critics. I was much interested by the accounts which he showed me of the various newspapers which have succeeded or failed under his guidance—interested too by his enthusiastic description of the United States, though when I got home I found myself re-reading my *Babbitt* as an antidote.

Of course he seemed to me to have some bees in his bonnet. One was about Pareto's Law, and I thought might be quieted somewhat if he would read Professor Pigou's remarks on that rather rickety structure in *The Economics of Welfare*—remarks which he seemed to have overlooked in his complaint that Pareto had not been taken seriously by English economists. Indeed, greatly daring, I ventured to tell Sir Ernest that I thought he read too much Socialistic literature, and too little of the work of serious but critical inheritors of the orthodox tradition; and that I was afraid he might find, even in the pages of his beloved Mill, things which he might not think it quite proper for working-men to read.

Then he had a terrible bee about the State. "So far as the rest of our public expenditure [other than debt service] is concerned, I take the view that the great bulk of it is largely wasted." He made some queer calculations (based on tax-burden per head, and without any reference to the proportion between taxes and national income) designed to show that England has been harder hit by the war than Austria; and some still queerer calculations apparently designed to suggest (though I do not think he really believed this) that if all taxation could be remitted the wages of the workman getting £2 10*s*. a week would immediately rise to £5 10*s*. His stories of his troubles with the taxing authorities, unlike his other anecdotes, sometimes forced me to suppress a yawn.

I formed the impression that, naturally enough, he was looking at the economic world very much from the angle of his own particular occupation. Thus he was much obsessed by the problems of Trade Unionism, and his calculations of the effect of restrictive policies and "sheltered" wage-rates in killing the production of small but useful journals were interesting and impressive. On the other hand, he hardly seemed aware of the existence of any general problem of unemployment.

He was greatly concerned to show that he was worth his (nominal) income of £10,000 a year, but I could not make out that what he had to say came to much more than that he thought it very unlikely that he and his like would ever voluntarily consent to do their valuable and important work for less. This may be the truth, but it seemed to me unlucky that he should try to illustrate its necessity from the cases of the Army and the Civil Service, which have so often been used by his Socialist critics to exemplify the opposite principle—that differences in rank and responsibility can quite well exist without the offer of

unlimited opportunities of private gain to the higher ranks. I am sure business leaders deserve (whatever that means) to be paid handsomely, but Sir Ernest said nothing to convince me that as a class they " deserve " to be paid so much more handsomely than professors or Prime Ministers, let alone ordinary workmen, as they are. I am glad he has been successful, and is well off; but I am glad too that he pays a thumping big income-tax and super-tax.

I hope he will ask me to tea again. It is a great pleasure to meet such people, and to hear the story of their lives, even when one does not agree with all their views. D. H. ROBERTSON

Industrial Ownership, its Economic and Social Significance. By ROBERT S. BROOKINGS. (New York: The Macmillan Company. 1925. Pp. xiv + 107.)

MR. BROOKINGS was in business from 1867 to 1896, afterwards has been actively concerned in university work and economic research, and during the war was Chairman of the Price-Fixing Committee. His qualifications for writing on industrial matters are thus unusually good. This little book draws attention to the change in the business unit during Mr. Brookings' lifetime, from a stage when capital and management were united in the same head or heads to a stage of company or corporation organisation where capital and management are almost entirely separated. He gives some remarkable statistics of the so-called " democratisation of industry " in the United States through the widespread distribution of shares in public corporations, especially those of the public utility class. Except where a few persons own a large portion of the stock, ownership is divorced from management. " The actual control, including the choice of those responsible for routine management, is exercised by the relatively small group—officers, creditors, or active stockholders, who are interested enough and have ability enough to exercise that control—and the financial results of the control exercised by this group fall only slightly on themselves. The owner's reliance is primarily on the good faith and ability of the management as witnessed by past performance. He cannot hold it closely responsible or make it carry personally the risk of loss, even of loss due to mismanagement " (pp. 11, 12). Management thus becomes conscious of itself as a separate factor from capital, with responsibilities of its own. Meanwhile, as this development has been going on, trade union pressure and Government control have been moralising the

entrepreneur, so that now management is coming to regard itself not as the agent of capital, but as "the representative of all the co-operating parties and conflicting interests," responsible to the stockholders only for a fair and stable return on their capital, to labour for the highest wage the industry will bear, and to the public for good and cheap service, all improvements going to the last two parties. "This change is not yet complete. It is a trend rather than an accomplished fact, but it is a very promising trend" (p. 24).

Mr. Brookings does not see any prospect of securing a larger fund for the reward of labour by reducing the shares already going to capital and management. His hope is in increased production, to be secured partly by relaxation of the anti-trust laws and by the publicity of accounts and statistics so as to reduce the waste of useless competition. He also wants greater productiveness from labour, to be induced by insurance against unemployment and by giving labour "an important voice in the choice of management."

The development which Mr. Brookings reviews is really a very old one. The emergence of the investing capitalist, who did not wish to bear the burden of management so long as his income was secure, began with the "sleeping partner" and the bank over-draft, and continued through the debenture and the preferred share, until with the universality of the company system he is now the typical capitalist. When a private business was converted into a company, the bulk, or at least a very large block, of the ordinary shares was generally taken by the vendors to give a sense of security to the investing public, and in this way unity and continuity of control were preserved. With the passage of time block holdings become dispersed, and the more widely they are dispersed the more serious becomes the constitutional problem of ensuring the election of a board of directors that will be competent and responsible. The more numerous the shareholders the less they can know of each other, and the more difficult it becomes for them to control a board once appointed or to intervene between board and staff. In fact, a board gets continued, if not by co-option, at least by co-recommendation, and if personal integrity may be presumed there is, as experience shows, much less certainty of capacity and sense of responsibility. One safeguard is in what one may call the growing class-consciousness of the management staff (apart from the managing director) showing itself in the development of a professional spirit and in the search for professional standards of conduct. There is, however, a divergence of opinion as to whether the loyalty of the

management is to "the business," as a quasi-metaphysical entity, or whether the ideal is to be that of service to the public and of co-operation with (not patronage of) labour. Quite clearly a clash may arise between "management" as representing "service" and the board of directors as concerned with dividends, and constitutionally the case will go, now, at least, and in the immediate future, against the former, but, on the other hand, the up-drive of "labour" to the ranks of managers and directors will tend to restore the balance against the "idle capitalist." The whole problem requires much more investigation, and Mr. Brookings' book is to be welcomed as helpful in the discussion.

HENRY W. MACROSTY

The Legal Minimum. By J. HALLSWORTH. (London: The Labour Publishing Company, Ltd. 1925 Pp. 95. Price 2*s.* 6*d.* net.)

MR. HALLSWORTH, the Industrial General Secretary of the National Union of Distributive and Allied Workers, has written an extremely interesting and useful little book. His subject is the working of the minimum wage legislation of this country, which, apart from special war-time laws and regulations, is contained in the Trade Boards Act of 1909 and 1918, the Coal Mines (Minimum Wage) Act, 1912, and the Agricultural Wages (Regulation) Act, 1924. He estimates that about 4,500,000 persons are covered by these laws, so that their scope is no mean one. All these measures may be said to agree in this, that their object is to establish a legal minimum wage in the industries concerned, while leaving it to the trade unions to secure by collective bargaining, if they can, higher rates of wages above the minima and better conditions of labour. In successive chapters he describes the rate-fixing machinery set up under the several Acts, the powers and duties of the rate-fixing bodies, the considerations to which in practice they have had regard, and the results of their labours. A separate chapter deals with arbitration awards of the Industrial Court in Trade Board cases. In conclusion Mr. Hallsworth holds that while Trade Boards are necessary in disorganised trades to give the workers "an escape from the vicious circle of low efficiency," the Trade Board method "is not and cannot be in any real sense a substitute for effective trade unionism."

This is an excellent little book, so clear and succinct that not a word in it appears to be wasted. HENRY W. MACROSTY

La Lutte contre la Cherté et la Coopération. By CHARLES GIDE. (Association pour l'enseignment de la Co-opération, Paris. 1925. Pp. 228.)

M. GIDE remarks in his preface to this book that it is in the nature of a loud-speaker, to enable his lectures to be heard by a wider audience than that assembled in his lecture-room at the Collège de France. Its contents, which form part of an annual course, founded by the French Consumers' Co-operative Societies, at the Collège de France, are rather of the broadcasting type, being general in character and put in an elementary and colloquial form. They appear to be brilliantly suited to their purpose, the exposition of complicated points being admirably clear, and yet, with one or two exceptions, not illusorily simplified, while the whole subject, which might so easily be made technical and dull, is exceedingly well popularised, without, again with one or two exceptions, being loose or inaccurate.

M. Gide deals successively with the effects of high prices, the causes of high prices, including destruction due to the war, bad organisation of commerce, taxes and the eight-hour day and other social reforms, with certain remedies, including the action of co-operative societies, and finally with the monetary causes of high prices and the way to treat them. The reader may be slightly disappointed, having regard to the title, to find that only some seventeen pages are devoted to the influence of Consumers' Co-operative Societies on prices. The conclusion arrived at is, that not much is to be expected from them in dealing with high prices, especially in the case of the present rise. They are, in fact, unable to touch the main causes of the present high cost of living, which are monetary, or most of the non-monetary causes either. In their own field, *i.e.* the economy of distribution costs and the elimination of unfair high prices, their effectiveness is, for various reasons, limited, and, in fact, neither prices charged nor dividends paid are in any way on a par with that part of retail prices supposedly due to the imperfections of the existing commercial organisation.

It is perhaps equally disappointing and a more serious defect to find that the monetary causes, which the author nevertheless regards as the most important, are also very briefly dealt with. It is here that the subject suffers most from its treatment. The quantity theory, for instance, is stated only in its crudest form, without qualification, and the account of the effect of deflation on international payments on p. 213 seems misleading, in that it

ignores the counterbalancing influence of a fall in prices on a rise in the rate of exchange.

The chief lesson which M. Gide wishes to enforce is that " la cherté " is very largely an illusion. The cost of living in France is much below that in other countries; it has risen less than wholesale prices (not more, as in England); though particular classes are suffering, incomes have on the whole adjusted themselves to prices. The lesson would perhaps be clearer if less space had been devoted to those causes of high prices which really mean a high cost of living because they are not necessarily accompanied by a rise in money incomes and more to the basic and, in France, perhaps " la presque unique cause," the depreciation of the franc. Perhaps, however, M. Gide wished also to enforce the lesson with which he ends, that the importance of a depreciated currency must not be exaggerated. " Les vraies richesses d'un pays ce sont la fertilité de sa terre, les ressources de son sous-sol, les forces naturelles dont il dispose, le travail de ses habitants, le génie de sa race, et ces richesses-là demeurent intactes quand le papier a été balayé." Or, in the words of a great English economist, " the only very important thing to be said about currency is that it is not nearly as important as it looks."

J. ELIZABETH NORTON

The Elements of the Modern Building and Loan Associations. By HORACE F. CLARK and FRANK F. CHASE. (New York: The Macmillan Company. 1925. Pp. viii + 540. No price stated.)

THIS volume has been prepared at the request of the United States League of Local Building and Loan Associations as one of the text-books of the League. The primary object has been to supply officials and others interested with complete and up-to-date information to aid them in working their Associations on the most efficient lines. The task appears to have been well carried out. The different types of Associations at work in the States are fully described, and the case for and against each fairly stated. Officials of existing Building Associations in this country, as well as those who contemplate starting such Societies, will find it one of the most complete guides which have appeared. At the end of each chapter there is a useful list of publications which have been used in preparing the case presented, so that those seeking even more detailed information on any special issue may go to the source.

The part played by these Associations in promoting saving amongst the population of the States is shown by their astonishing growth in recent years. Since 1912 the number has grown from 6000 to over 10,000, the membership from 2,300,000 to 7,200,000, and the assets from $1,030,000,000 to nearly $4,000,000,000.

HENRY VIVIAN

International Wholesale Co-operation. By ANDERS HEDBEY. (Co-operative Union, Ltd., Manchester. Pp. 78. 2*s*.)

THE writer of this interesting little volume draws attention to that risk of departure from what he regards as sound principles which confronts the Co-operative Consumers Movement internationally, unless it takes steps now to put itself right.

The theory is that the consumer should control the enterprise and receive the profits, and this, he claims, holds good in practice nationally. He points out, however, that now that the National Co-operative Wholesale Societies are taking steps to export any surplus manufactures which their National Co-operative Market cannot utilise, they will be violating co-operative principles, because they will be supplying consumers who do not participate either in profit or control. The author suggests, in effect, that sound principle requires that National Co-operative Wholesale Factories should limit themselves to their national market, and that the International Co-operative Market should be dealt with by an International Co-operative Organisation. The Finnish Co-operative Match Factory, which does a considerable export trade through co-operative organisation in other countries, is cited as an illustration of a development not in accord with sound co-operative principles, whilst it is suggested that the Scandinavian Wholesale Society is an example of international co-operation which indicates the solution of the problem. It is admitted that international organisation is not yet ripe for the complete application of this Scandinavan policy, but suggestions are made which the author thinks will prepare the way for its adoption. Those who are thinking forward on these matters will find this book well worth attention.

HENRY VIVIAN

Report of the Fifty-seventh Annual Co-operative Congress. (Co-operative Union, Ltd., Manchester. Pp. vii + 715. 3*s*.)

THIS volume differs little in substance from its predecessors, except that it brings up to date the statistics concerning the

growth of the movement. The rules of the Union were amended at the Congress to include in its declared objects "the ultimate establishment of a Co-operative Commonwealth." This does not involve any change of policy. The growth of the Co-operative Movement will no doubt be determined, in the future as in the past, more by the extent to which it convinces an increasing number of people that their capital is secure and that it is worth their while to purchase at the "Store" than upon any declared idealism, however worthy this may be. What with Capitalism in operation and the choice of a Socialist, a Communist and now a Co-operative Commonwealth, the public have a variety from which to make a selection. The probability is that it will continue to utilise all four, and that the Communistic Public Park, the Socialistic Water Works, the Co-operative Store, the Capitalistic Cotton Factory and Shipbuilding Yard will continue for some time.

The statistics show the movement to be in a healthy state. There are now 1445 Societies of all kinds, with a membership of 4,752,636, whilst the Share Capital stands at £91,926,000.

The Union proposes definitely to take in hand the task of promoting co-operation in agriculture, and to establish a closer relation between agriculture and Consumers' Co-operative Societies, and to this end a new Agricultural Department has been established. HENRY VIVIAN

The Consumers' Co-operative Movement in Germany. By THEODOR CASSAU. (London: T. Fisher Unwin. Pp. xvi + 201. 7*s.* 6*d.*)

WHILST this publication will appeal more particularly to those concerned in the administration of Co-operative Stores, the general student may read it with interest and profit.

The Organisation of German Consumers' Societies is explained in considerable detail, and reasons given for their varying fortunes.

The development of Unions, of Local Societies for propaganda and educational purposes, and of Wholesale Societies for purchase and manufacture is fully described. It is clear that the German movement has to a great extent been inspired by that of Great Britain, and that the later Societies are, with modifications, an imitation of the "Rochdale" model.

The middle of last century saw the formation of German Consumers' Societies of various kinds, but it was not until 1890 that the possibility of establishing such Societies with limited

liability was afforded, and since that date this principle has been adopted.

There are interesting chapters dealing with the relation of the movement to Trade Unions and political parties, from which we gather that the issues raised have been substantially the same as in Great Britain. As in Great Britain, the workman, organised as a producer in his Trade Union, came into conflict with himself organised as a consumer in his Co-operative Society.

Whilst the Societies are formally democratic, we are told that "the predominance of one personality is almost entirely the rule. Actual colleagues are comparatively rare." One is the leader "in all the Society's affairs," and "the colleagues beside him occupy a very secondary place." On this matter the German co-operator is evidently more docile than the British.

The new policy of the Communists of seeking to get control of the Co-operative Movement is, we gather, not confined to Great Britain, for we are told that in Germany "recently, in the towns where the Communists have a stronger influx, their attendance at the General Meetings of the Societies has been crowned with certain successes owing to the fact that the meetings have been comparatively easy to pack."

The turnover of the Consumers' Societies for 1924 is placed at 559 million marks, and the membership at $3\frac{1}{2}$ millions.

HENRY VIVIAN

India in 1924–25. By L. F. RUSHBROOK WILLIAMS, C.B.E. (Calcutta: Government of India Central Publication Branch. 1925. Pp. xvii + 436.)

MR. RUSHBROOK WILLIAMS has produced another of his annual reports. It is the most lucid and interesting of those that have yet appeared in this series. There is, indeed, a curious outcrop of misprints on one page, and a statement referred to on page 144 appears to be missing. Also the impression of some of the diagrams might be clearer, and those dealing with trade-values might usefully be supplemented by trade-volume graphs, since trade-values alone, owing to increase in the price of merchandise, give an exaggerated idea of expansion. But the author is to be congratulated on an admirable work. Details concerning provinces, essential for the close student, swell the size of the volume, but are so arranged that the general reader can omit them and concentrate on all-India facts and figures.

The picture presented is encouraging. Recently the atmosphere

of India had appeared to the outsider to be charged with certain dangers. Now the gusts which followed in the wake of the war-storm are dying away, and the electric disturbance due to strong political currents is becoming localised. After five years of unbalanced budgets, financial equilibrium has been restored; and it has been possible to ease the burden of contributions to the central exchequer which has hampered the "nation-building" activities of provincial Ministers and prejudiced the success of the reformed constitution. A steady revival in trade has taken place. The value of the total trade during the calendar year 1924 was 467 millions sterling—the highest figure since 1913. The balance of trade is in India's favour—to the extent apparently of 83 millions sterling; and the increase in the value of exports is in a higher ratio than that of the value of imports, despite the fact that the enhancement since 1913–14 in the cost of the latter has been double that of the former.

On the other hand, we are faced with the perennial poverty of the masses. In the previous year's report the old theory which placed the average annual income at £2 per head had been shown to hold no longer—if indeed it ever really held. The author returns to this topic. The average income in Madras Presidency is about £6½; in Bombay the same for urban, and £5 for rural localities. Even this is sufficiently distressing, though great allowance must be made on account of climate, simple tastes and the generally reasonable cost of the necessaries of life. Poverty is reflected in the budget. The estimated revenue for 1924–25 was only 90 millions sterling—a preposterously small sum for the running of national services for some 250 millions of people. The average Indian is not the "economic man." Social or religious sentiment demands wasteful expenditure on domestic ceremonies, forbids obvious means of manuring the soil, encourages the human parasite and permits the monkey, the porcupine and the rat to commit depredations equal, it is estimated, to the total public revenue. In the towns the labour population is fluctuating; in the country subsidiary industries are neglected. Communications and banking facilities are still inadequate. Only 4 per cent. of the population is at school. Lack of sanitation undermines physique. Some of these causes of poverty are remediable by large expenditure. But the funds are not forthcoming and we are in a vicious circle.

While, therefore, trade and industry are expanding or at least recovering, and though India already takes her place among the eight chief industrial countries of the world, the bulk of her

population remains burdened with rules of caste and traditions of life which militate against progress. India is a land of violent contrasts. Prosperity jostles with a poverty unparalleled in Western lands. While the proportion of those undergoing education in its higher grades competes with what is found in European countries, the masses remain largely illiterate. We see a highly developed civilisation side by side with witch-murders, human sacrifice and savage dacoities. Adjustment is bound to be slow in a vast and heterogeneous population. But we are told that the economic condition of the masses appears to be gradually improving. During the decade ending 1922 the wages of both skilled and unskilled labour in the Bombay Presidency roughly doubled, while the cost of living rose by 54 per cent. Figures from other provinces tell a similar tale. The Legislature is not neglectful of the interests of industrial labour. A Workmen's Compensation Act was passed during the year—not before it was wanted, since in the first month of its operation thirty lives were lost in the collapse of a cotton-mill. A Trade Union Bill is on the anvil. India's obligations as a member of the League of Nations have involved her in other beneficent activities. But India is essentially an agricultural country; and it may be doubted whether the three-fourths of the population who are engaged in agricultural pursuits will altogether welcome the protectionist policy on which she appears to be embarking. The suspension of the excise duty on Indian mill-made cloth took place after the end of the period here treated. The Steel Protection Act, passed within the year, has been criticised as giving no adequate return to the consumer. One of the reasons for its introduction was the high exchange value of the rupee, which itself is decried in some quarters as a handicap on the farmer, already suffering from the great increase in the price of imports. The results of the work of the Tariff Board will be awaited with interest. Meanwhile the labours of the Agricultural Department are bearing fruit in the supply of suitable varieties of seed. The Co-operative Movement, though still on a modest scale, steadily expands. Could adequate funds be found for development, there is a great mine of wealth in India's forests, covering as they do a quarter of a million square miles. Forest administration is ever fraught with difficulties; but it is to be devoutly hoped that there will be no short-sighted yielding to a popular clamour which might destroy the results of such development as has been possible and stultify far vaster potentialities.

On the whole there are encouraging signs of all-round progress.

And the attendant conditions are auspicious. India's overhead charges are small. Thanks to the Imperial connection she is protected at a minimum of expenditure from attack by sea. The cost of her army, though it provides the politician with a standing grievance, works out at two shillings and fourpence per head of the population—this being one-eighth of the per head cost of the defence expenditure of Japan. Taxation is light. The national debt is only 666 millions sterling, of which all save 192 millions is remunerative—how remunerative and salutary is shown in the fascinating story of India's irrigation works, with their 26 million irrigated acres, which it is hoped soon to expand to 40 millions. These things are the outcome of a careful stewardship. They constitute a sure foundation. Let us hope that impatience, which Mr. Rushbrook Williams describes as the "dominant factor in the mentality of educated India to-day," will not mar the superstructure. Agitation which manifests itself in forest incendiarism involving incalculable damage will not advance matters. The author tells us that the bulk of the people, disappointed "at the failure of their political leaders to attain the promised millennium," have withdrawn more and more into the circle of their own immediate affairs. A millennium, if at all humanly attainable, must be won in India through a stern apprenticeship in social and economic advancement no less than in the laborious lessons of public administration.

HENRY SHARP

The Industrial Evolution of India. By D. R. GADGIL. (Humphrey Milford. 1924. Pp. xix + 242. 7*s.* 6*d.*)

Production in India. By R. KANTA DAS. (Calcutta: Visva-Bharati Bookshop. Pp. x + 180. No price.)

A National System of Taxation. By A. RAMAIYA. (Madura: P. S. Mahadeva Iyer. Pp. xii + 252. No price.)

Groundwork of Economics. By R. MUKERJEE. (London: Longmans, Green & Co. Pp. viii + 217. 5*s.*)

The Evolution of Provincial Finance in British India. By B. R. AMBEDKAR. (London: P. S. King & Sons. Pp. xxi + 285. 15*s.*)

OF this group only two pretend to add anything new to our knowledge of India, the rest are rather text-books for Indian students. Mr. Ambedkar has the facility of making forbidding subjects attractive and has produced a very readable book.

Provincial finance in India has so far been almost entirely neglected by writers on finance and little or nothing has been published apart from Government Blue Books and memoranda. *The Evolution of Provincial Finance in British India* is a useful introduction written rather from the historical point of view. It does not pretend to be exhaustive and is essentially a piece of pioneer work. There are four parts. Part I traces the history from 1833 up to 1873, when a new régime was begun. Centralisation having proved a failure, the opponents of the system wished "to make the Local Governments partners in the great joint stock of Indian Finances . . . instead of keeping them on the footing of agents and servants," thus anticipating the present reforms. Opposition, however, was too strong, and as usual the solution was a compromise, details of which are given in Part II. Various methods are described, such as "Budget by Assignments," "Budget by Assigned Revenues," and "Budget by Shared Revenue." None succeeded in giving the desired results. Part III is analytical, and is an attempt to show that whatever the financial relationship between the Provincial and Central Governments, the former were never in law or fact independent but were closely regulated. It is an interesting piece of work, but does not appear to be so fundamentally important as the author seems to think. Part IV is devoted to finance since the introduction of the new reforms. The treatment here is not so good, probably because the space allotted to it is too small and the subject very complex. The conclusion drawn is that good finance cannot be expected under the present dyarchical system of government. Certainly it will be difficult.

The author is to be congratulated upon the impartial way in which he has discussed an eminently controversial subject.

Mr. Gadgil's *Industrial Evolution of India* was written as a thesis, and is a sketch of the industrial and agricultural development of India since the Mutiny. It is a small book, and while not presenting much new matter has the merit of emphasising certain points which have been too neglected by Indian writers, such as the far-reaching effects of modern developments in transport on Indian industries; the inevitable decay of these industries when brought into competition with modern methods of production; and the curiously unstable condition of the indigenous urban industries owing to their dependence upon Court patronage. Considerable space is devoted to agriculture. This is rather a chronicle of alternating periods of comparative prosperity and poverty which tends to make monotonous reading. Of develop-

ment there is little trace, though certain readjustments show themselves as a result of the new transport system. The slowness of the change to a better technique is apparent, but enough emphasis has hardly been placed on the colossal nature of the task imposed. So far the main effects have been towards training the teachers and laying foundations—a task by no means completed. Attention is also paid to the effect of transport in equalising prices within the country and the general levelling up consequent on India taking her place in the larger commercial world. The change in the structure of industry is more interesting, as there is more movement and a quicker reaction to the new conditions. In discussing the old crafts it is pointed out that " the chief feature to be noticed is that the demand for the products of the handicrafts was confined, mostly, to the place where they were produced. The outside demand except in a few rare cases was insignificant." The effect of this on the size and organisation of the industries was important. In the villages there was no organisation at all. Such being the case, the changed environment brought forth no readjustment, with the inevitable result that there was a universal decline in all the handicrafts and, what was and is more serious, in the lowering of the standard of taste of the buying public.

In summing up the situation the author concludes, " The only thing, then, remarkable about this industrial evolution of India has been its slowness." Certainly progress appears to be slow—though it has greatly accelerated since 1914—but we have not a sufficiently clear analysis of the Indian environment to know whether this is remarkable or otherwise.

Professor Mukerjee's new book, *Groundwork of Economics*, has for its object the popularising of economics and also the supply of a text-book for students reading economics. These conditions naturally limit its scope. The author believes that Indian students should approach the study of economics through a study of the Indian environment—a contention with which all will agree. Hence great emphasis is laid on the social and agricultural conditions, while frequent comparisons are made with Japan, China and the less industrially developed countries of Europe. The Village Community is described, together with the system of landholding and methods of remuneration. The evils of fragmentation of holdings are dwelt upon, and the necessity for better methods and land reforms in general advocated.

In all this there is nothing new, but the presentation is pleasant and adequate for the class of reader for whom the book is designed. The last three chapters are in some ways the most

important, as here we have Professor Mukerjee's own ideas as to the lines along which future development, both of agriculture and industry, should proceed. He believes that this evolution will follow lines of its own in harmony with the Indian environment.

Further reading shows that he hopes for some combination of agriculture with industry, and for this he gives many reasons. That at present agriculture does not occupy the cultivator's time all the year round, and therefore cottage industries can be dovetailed in with advantage. Again, it is socially desirable and will avoid the degradation of the work-people.

The method of development would be co-operative, as already India exhibits a highly developed communal spirit. The industries are, of course, to be as perfectly equipped as possible, and the motive power will be electrical. In the chapter on "Labour Problems" the evils of industrialisation are emphasised both in Europe and Asia. The appalling conditions in many of India's industries, and especially in mining, are dwelt upon both with a view to calling attention to the necessity of more and better legislation and also to support the argument for rural industries.

Prophecy is always dangerous, and one feels at times that Professor Mukerjee allows his enthusiasm to carry him away. Nevertheless, it is imperative that the lines of development should be considered in advance if Western industrialism is not to be the greatest of all evils in India.

Mr. Ramaiya does not write his *National System of Taxation* for the expert, but rather for the general public. The first four chapters, which are devoted to a discussion of general principles, call for no comment, but the rest of the book only serves to show how easy it is to repeat such principles without realising their application. It contains more fallacies and displays more ignorance of the practical problems of taxation than one could have deemed possible in so short a space.

Finally, *Production in India* is merely a collection of statistical tables culled from various Blue Books, to which are added a few running comments. It is difficult to see what purpose the book can serve. Incidentally it has two pages of Errata, which seems a little excessive.

W. S. THATCHER

An Introduction to Statistical Methods: A text-book for college students, a manual for statisticians and business executives. Revised edition. By HORACE SECRIST, Ph.D., Professor of Economics and Statistics, North-western University. (New York: The Macmillan Company. 1925. Pp. xxxiii + 584.)

THE first edition of this work was reviewed in the ECONOMIC JOURNAL, June 1918. To form the present edition it has been entirely rewritten and revised; and it calls for further notice not only for this reason, but also because it shows the range and type of statistics believed to be suitable for the use of one of the largest groups of students in America, who take a serious course of statistics as part of their ordinary routine. The American reader appears to prefer diffuse and repetitive style, and for the student preparing for an examination no doubt the arrangement in numerous headed sections and numbered summaries (*e.g.* "Some 'Do's' and 'Don't's' in the Use of Averages") is convenient; but the unnecessary length is a little repellent to the mature reader.

One merit of Professor Secrist's method of exposition consists in the logical arrangement of the first ten chapters, which begin with the sources of statistics, continue with the units of measurement, and proceed to classification, tabulation and presentation graphically and by averages. There is not the haste to arrive at results before the method is analysed that is found in some modern text-books. For "business executives" it is a manual in the sense that it discusses the technical terms and methods that can properly be used, rather than a description of the way to work up the data of industrial operations rapidly into tables and graphs. These chapters take us as far as the measurements of dispersion and are almost entirely non-algebraic. They can be recommended as giving a sound and sufficient account of statistical processes suitable for those with arithmetical, but not algebraic, aptitude. Where so many methods are discussed, it is surprising to find no mention of Professor Gini's "mean difference."

The algebraic treatment begins with a statement of the Law of Error, following Bernouilli. It is seriously weakened by the complete omission of any treatment of Laplace's extension to the similar law obtained by the addition of small quantities; for the applications which the author evidently wishes to make depend on Laplace and not on Bernouilli. Not recognising

that the Law of Error itself provides for asymmetry, he treats skewness as an aberration from that law; and yet the formula: Mode = thrice the median less twice the mean, which he gives as "a purely empirical interpolation for the mode," is derived from the asymmetrical Law of Error, and is not valid unless that is relevant. He does not give any measurement of asymmetry that depends on the third moment. The treatment of correlation is judicious, and will tend to prevent some of the grosser misuses of the coefficient; but the passage from the correlation in Darbishire's dice experiments to the Pearsonian coefficient is illogical from the same inadequate treatment of the Law of Error. It is perhaps regrettable that he gives space to the "concurrency deviation method," and especially that he uses the coefficient $r = \pm\sqrt{\pm\frac{(2c-n)}{n}}$, where n is the complete number of pairs and c the number having like sign. If applied to a double median table, this only agrees with the result obtained from the curve of error at $r = 0$, $\pm\frac{1}{\sqrt{2}}$, or ± 1.

In the final chapters the methods of treating Time Series, which Professor Persons has made familiar, and the whole subject of index-numbers are carefully examined. Some of the exponents of the methods of index-numbers would desire a more explicit statement of their relation to the method of sampling, and it is a serious lapse that it is not definitely shown that the "weighted aggregate" and the "weighted price-relative" methods are essentially the same, for much confusion exists in regard to them. Nevertheless, the whole treatment of index-numbers is careful and informing, and should be of use to the classes for whom the study is designed.

Generally this revised edition is in many ways a better book than the first edition, and that was among the best elementary treatises on the subject extant.

A. L. BOWLEY

A National Rural Policy. Prepared by a Special Committee on Rural Reconstruction. (Noel Douglas. Pp. 71. 2*s.* 6*d.*)

THE policy outlined is the work of a small private committee comprising, for the most part, persons with some acquaintance with rural industry. Their main conclusions are that land should be nationalised and prices, both wholesale and retail, stabilised, but the processes by which these ends should be attained are not

elaborated in any detail. The authors deal, also, with many minor reforms. The book is refreshingly free from the attacks upon farmers and landlords which too often characterise studies of this kind, though here and there the criticism of present conditions is somewhat academic. "Compensation paid for damage (to crops by hunting) does not, unfortunately, recreate the wealth consumed," but the same argument is true of the new golf ball dropped in place of the one sliced into the gorse, or of the new flies tied to the cast to replace those left amongst the willow branches, and no one suggests that people should neither play golf nor fish. By those who are seriously concerned for the present state and future prospects of British rural life the book will be recognised as suggesting lines of development which merit serious consideration.

C. S. Orwin

Scritti. By Mario Bacchi. (Milano. 1925. Pp. xvi + 243.)

This volume contains a number of short essays on philosophical, legal and economic subjects by Mario Bacchi, who was the son of the distinguished Italian economist, Riccardo Bacchi, and who died of pneumonia at the early age of twenty. These essays give evidence of astonishing maturity of thought and ripeness of judgment; they show not merely great promise, but already a genuine measure of achievement. His father was abundantly justified in the "misero orgoglio" with which he recalls that he had been "the first and chief master of Mario."—"The slow and continuous systematic formation of the intelligence and the cultivation of the mind of my son—conducted with infinite passion and trembling joy from the first years of childhood—has been my happiness, the noble work of my life." The fruits of his labours are to be found impressed in the pages of this small book, and do the utmost credit alike to the training of the father and to the receptivity and natural ability of the son.

Through the tragic and untimely death of Mario Bacchi the world is the poorer for an original and acute intellect, which promised to enrich the literature of economics with notable contributions to economic thought, and in particular to that synthesis of economic reasoning with philosophical and sociological principles of which mankind stands so greatly in need.

The intrinsic as well as the human interest of these writings warrants the hope that they may be rendered accessible to a wider public. For the moment they have been privately printed.

C. W. Guillebaud

NOTES AND MEMORANDA

Reform of the Irish Census of Population [1]

Irish statistics are hieroglyphics that express chunks of Irish life to those who can read them. But figures are not scientific evidence to any thinking mind unless one knows by what method the measurement of the massed facts was done. We ought to be told that whenever the statistics are published. Even when we can read through the figures to the massed facts that stand behind them, we must then proceed to the next step of interpreting, of perceiving the significant meaning of what we are told. It is ridiculous to merely fling down figures, in the traditional British manner, without supplying the public with all the information needed in order to interpret the meaning of the statistics. Now, just here is where the opportunity lies waiting for the Department of Local Government and Public Health to make a distinguished new departure for the first Census of the Irish Free State. Let it put all its capacity into the task of interpreting the statistics that it publishes.

I take, as illustration, a table which has appeared in every Irish Census since 1841: it is Table 43 on page 62 of the 1911 Census (Cd. 6663 of 1912–13, Vol. CXVIII.). It states the *actual numbers* of the sexes in each Province of Ireland, as returned at each Census. Nobody has read this table as printed, for it cannot be interpreted until re-calculated to show the *relative numbers* of the sexes. When translated to show the number of females per 1000 males, this table will be seen to be sensationally interesting, viz.:

Females per 1000 Males

Census.	Leinster.	Munster.	Connaught.	Ulster.	Ireland.
1841	1048	1020	1004	1054	1034
1851	1056	1053	1038	1060	1053
1861	1038	1032	1011	1073	1044
1871	1045	1031	1021	1084	1050
1881	1030	1017	1019	1084	1042
1891	1021	995	1001	1073	1029
1901	1016	989	999	1071	1026
1911	993	949	958	1052	1003

N.B.—For All Ireland, the Registrar-General estimated 1921 = 971.

[1] Part of a paper read before the Statistical and Social Inquiry Society of Ireland, December 3, 1925.

You now perceive (for the first time?) that Ireland to-day is a country having a *male surplus.* It has been tending that way ever since 1851. This phenomenon appeared first in Munster, it then extended to Connaught also, and it is at last seen also in Leinster. Ulster is an exception, probably because in the various branches of its textile industries it offers employment suitable for women. But since 1881 the Ulster figures show the same tendency. The Census Reports ought to have revealed this interpretation of the figures. Furthermore, beside the Irish figures, we ought also to be told the European figures—for *in this matter Ireland is unique in Europe.* I can only quote here the number (females per 1000 males) for a single date in each case, viz.:—England and Wales (1921) = 1095; Scotland (1921) = 1079; Denmark (1911) = 1060; Sweden (1913) = 1045; Norway (1910) = 1069; Holland (1913) = 1013; Portugal (1911) = 1100; German Reich (1910) = 1026, etc. We cannot see the significance of the Irish figures unless we can compare ourselves with Europe. Finally, if we consider only the adult population (aged twenty years and up) even the Irish figures undergo a curious change, viz.:

Census.	Total Adults.	Male Adults.	Female Adults.	Females per 1000 Males.
1881	2,801,890	1,337,516	1,464,374	1095
1891	2,625,775	1,264,973	1,360,802	1076
1901	2,632,786	1,277,548	1,355,238	1061
1911	2,666,571	1,316,898	1,349,673	1025

Did any of you know that the adult population of Ireland has been rising since 1891? But it is only a rise of male adults: Ireland is not a place where adult women can find a living. I notice that the male adults who drafted the Civil Service Amendment Bill, which has passed its Second Reading in the Dail recently by a narrow majority, are determined to oust the adult women from that form of employment. These men are unable to read the facts of Irish life because of the bad form in which the Irish Census has been published. They ought to hold their hand until the new Census has been published. The survival of the Irish race in Ireland depends upon whether we can arrest this disease of the male surplus.

In past times the province of an Irish statistician has been to supply just those Irish figures that were needed to complete the totals for the United Kingdom. Then, whenever compari-

son had to be made with foreign countries, the unit for this comparison was never Ireland but always the United Kingdom. (See any issue of the *Statistical Abstract for the Principal and Other Foreign Countries*; the last, or 39th Number, was Cd. 7525 of 1914.) Hence in our Irish statistics we have been given none but comparison of Ireland with Ireland herself in previous years. To-day Irish statisticians are proudly conscious that they are the interpreters to other nations of the social and economic character of an independent Member of the League of Nations. Hence we may expect to find in the statistical publications of the Irish Free State an habitual use of comparison of Irish figures with the corresponding figures for other European or Dominion countries, which are of the type most suitable for comparison with our own type. This will be an absolutely new departure in Irish statistics; it will carry the minds of the Irish people into regions of thought hitherto unknown to them. I do not mean that their knowledge of other countries will be enlarged by such comparisons; I mean that their knowledge of Ireland itself will dawn for the first time upon their intelligence with a quite novel significance. Nobody can know Ireland who only Ireland knows. The statistical purpose of such international comparisons is to provide the human mind with a norm or standard by which the character of the Irish fact (when reduced to measurement by statistics) can be judged and assigned its peculiar (often very peculiar) place among the facts of the contemporary world. The outstanding hitherto-unseen truth which Irish statistics will now reveal to ourselves is that Ireland is amazingly unlike any other country. Her statistics will become the most quoted of all countries because in most statistical generalisations Ireland will be found to be an exceptional case. But nobody in Ireland is yet aware how anomalous we Irish are, unless he has been at the trouble (and it is a very great trouble) to compare Irish statistics with the comparable statistics of other countries.

Consider, for example, that best-known of the features in which Ireland is unique—that it alone is a country where population has been diminishing since 1845. The accepted explanation to most Irish minds is the one word—emigration. Now emigration is found in every European country; but if countries are compared together and classified according as their emigration is (i) great, (ii) moderate, or (iii) small, it will be seen that for many years past Ireland has belonged to Class (ii) and that for a dozen years back she is found to be in Class (iii). What most Irish people have yet to learn is that in Ireland our births are much too few,

our deaths are much too many; so that our "natural increase" is so small that it fails to fill up the gap caused by a quite moderate emigration. These facts about Irish life will not be learned except through comparative international statistics. This is the sort of thing that our Irish statisticians have now got to give us. Let me give you a taste of it, to be going on with. In the next table I have given the "natural increase" (excess of births over deaths) for two single years, 1885 and 1910, showing the alterations in these matters after an interval of twenty-five years. (The figures are taken from the *Statistical Abstracts*.)

EXCESS OF BIRTH-RATE OVER DEATH-RATE (PER 1000)

Country.	Single Year, 1885.	Single Year, 1910.
	B. D. Incr.	B. D. Incr.
Ireland	23·5—18·4 = 5·1	23·3—17·1 = 6·2
England	32·5—19·0 = 13·5	25·1—13·5 = 11·6
Scotland	32·2—19·1 = 13·1	26·2—15·3 = 10·9
Denmark	33·6—18·9 = 14·7	27·5—12·9 = 14·6
Norway	32·4—17·3 = 15·1	26·1—13·5 = 12·6
Sweden	30·3—18·4 = 11·9	24·7—14·0 = 10·7
Switzerland	28·8—22·4 = 6·4	25·0—15·1 = 9·9
Holland	36·2—22·8 = 13·4	28·6—13·6 = 15·0
Belgium	31·8—21·9 = 9·9	23·7—15·2 = 8·5
Portugal [1]	32·1—23·2 = 8·9	32·1—19·1 = 13·0
Spain [1]	36·1—32·2 = 3·9	33·1—23·3 = 9·8
Italy	40·1—28·4 = 11·7	32·3—19·9 = 12·4
Germany	38·5—27·2 = 11·3	29·8—16·2 = 13·6
France	25·4—23·1 = 2·3	19·6—17·8 = 1·8

[1] 1891 instead of 1885.

In reading this table it is well to recollect that an emigration of 7 per 1000 is "moderate," and of under 4 per 1000 is "small," for European populations. For Ireland, 7 per 1000 means the emigration of over 30,000 persons per annum. Our "natural increase" cannot afford that much. The Irish quota for immigration to the United States under the revised Per-Centum Limit Act is 28,567 for 1924–26, of which 2670 belongs to Northern Ireland.

Of course, the principle which I am elucidating in this table—namely, that Irish ideas about Irish facts would be greatly corrected if our Irish statistics, as published, were interpreted by comparisons made with the corresponding figures for other European countries—will also apply to many matters which lie outside the scope of a Census of Population properly so called. Take the use made of the soil in different countries. The very

small use which our people make of one of the most fertile soils in Europe can never be brought home to the intelligences of Irishmen except through international comparisons.

From the illustrative instances given it has been made clear that, in the matter of the form in which the results of the Census is presented to the public, great improvements are possible. If I am right in my assumption—if the Department be really ambitious to make this first Census of the Irish Free State a notable new departure in Irish statistics, it is certainly in this direction, in the elucidation of the Census figures by interpreting their significance to the public, that all its capacity and enthusiasm should be concentrated. Statisticians sometimes apply the term "secondary comment" to that sort of elucidation of the primary Census figures. To find ample room for a great new extension of such secondary comment, it is absolutely necessary that the Population Census for Ireland should be pruned of a great part of its withered branches, and that some vital parts should be divided from the parent tree in order to take on an independent growth of their own.

It is manifest that the compiling of this secondary comment will take a considerable time, and ought not to be rushed. But it has long been the custom to issue a Preliminary Report of the Census with the utmost expedition; and then with adequate deliberation to prepare the Final Report. In the following table I have compared these two Reports as regards one single statistic —namely, the "Total Population of Ireland." The number of days between Census night and the issue of the Preliminary Report is shown in the second column; and the last column shows the error in this one statistic.

IRELAND'S POPULATION: PRELIMINARY AND FINAL FIGURES

Census.	Days.	Preliminary.	Final.	Error.
1871	73	5,402,759	5,412,377	+ 9,618
1881	73	5,159,839	5,174,836	+ 14,997
1891	53	4,706,162	4,704,750	− 1,412
1901	46	4,456,546	4,458,775	+ 2,229
1911	46	4,381,951	4,390,219	+ 8,268

Now, inasmuch as we all deplore the "partition" of our country, and because it is statistically necessary to preserve comparability with past Censuses, I hope that I am right in assum-

ing that the new Census for Ireland that is to be issued by the Irish Free State will be the result of a combination of the two new Censuses for Northern Ireland and for the Irish Free State respectively. In that case the two local Censuses in question will come out in the first instance, like the Preliminary Report of previous occasions; and they will jointly satisfy the superficial requirements which clamour for an expeditious publication of the results of any Census. After their appearance, the preparation of the All-Ireland Census, in which all the secondary comment will find its place, can be taken in hand with proper deliberation. If published in the form I have described, in which every All-Ireland statistic would be made comparable with the corresponding statistics for several other European countries, it is certain that this Population Census of Ireland in 1926 will create a great sensation in all parts of Ireland. Its educational value would also be enormous. We really cannot form a correct opinion about any subject of Irish economics unless we make a study of Irish life through the difficult language of comparative statistics. What I would ask the Department of Local Government and Public Health to do with its first Census is to make it a manual of comparative statistics, in order to promote the knowledge of Irish economics. The people that is unable to properly use statistics is not yet capable of self-government.

C. H. OLDHAM

THE ROAD FUND AND THE TAXATION OF MOTOR VEHICLES

SEVERAL Members of Parliament and some newspapers have been arguing that the proceeds of the licence duties which are paid by the owners of motor vehicles can only be spent on the improvement of roads. They base their argument on a promise made some years ago, when Mr. Lloyd George was Chancellor, that the proceeds should go to the Road Fund. Since that time the war has changed all the conditions of finance, and promises made then are no longer binding. If the licence duties are a tax, the people who pay them have no more right to dictate to the Government how the money shall be spent than Messrs. Bass and Co., or Messrs. Lyons and Co., have to dictate how the Beer Duty or the Tea Duty shall be spent.

At the present time there are special reasons why the motor licence duties should be thrown into the public purse like other

taxes, instead of being earmarked for the special purpose of road-improvement. If Ministers think it right to contribute to the highway expenditure of our local authorities, they should allocate a given sum of money or pay a portion of certain kinds of expenditure, instead of assigning a particular tax. Perhaps the only case of "earmarking" which could be justified on economic principles would be the application of the Death Duties (which are paid out of capital) to the redemption of the National Debt.

A special tax on motor vehicles may be justified on more grounds than one. Hardly any visible expenditure offers better evidence of "ability-to-pay" than the ownership of a motor-car or van; and the owner of a big car or van, much more the owner of several cars and vans, has a clear taxable capacity which has somehow escaped the income-tax gatherer. If possible, the *use* as well as the ownership of motor vehicles should be taxed; and for this reason the Petrol Duty might well be revived, with a special counterbalancing tax on road vehicles driven by steam or by some fuel which does not come under the definition of "motor spirit."

No constitutional or economic principle stands in the way of the Chancellor of the Exchequer if he wishes (1) to treat the proceeds of the Motor Vehicles Duties as part of his ordinary revenue, or (2) to revise, equalise and increase these duties, as Mr. Lloyd George increased and equalised the Publicans' Licence Duties in the Budget of 1909. The scale of duties payable by publicans between 1880 and 1910 favoured the big house at the expense of the small house, just as the present scale of motor taxation favours the big car or van.

In the case of private motor-cars the scale approaches equity, since it taxes each car according to its nominal horse-power. But, in practice, the formula giving the taxable horse-power has become obsolete, being based solely on the bore of the cylinder, and should be replaced by one based, as nearly as may be practical, on the real horse-power. Then, since our general tax system is based on the principle of *progression*, the tax per horse-power should increase as the horse-power itself increases, or after a given point, say 10 h.p. Motor bicycles should also be taxed according to their real horse-power.

But the chief anomaly is to be found in the scale applied to commercial motor vehicles. Up to a certain point—one ton—the scale is reasonable enough, but after this point the tax fails to

[1] As a matter of fact, these duties almost cover Mr. Baldwin's £50 million Sinking Fund.

increase as the weight (and road-wearing power) of the van or lorry increases. The duties and charge per ton are as follows:

Weight (unladen).	Duty.	Tax per ton.
8 cwt. to 12 cwt.	£10	£25 to £16 13*s*. 6*d*.
12 cwt. to 1 ton	£16	£26 to £16.
1 ton to 2 tons	£21	£21 to £10 10*s*.
2 tons to 3 tons	£25	£12 13*s*. to £8 6*s*. 8*d*.
3 tons to 4 tons	£28	£9 6*s*. 8*d*. to £7
Exceeding 4 tons	£30	£7 10*s*. and under.

Clearly the duty should increase *at least* as fast as the weight. Probably it should be progressive as well, *e.g.* the second ton paying £18, the third £20, and so on. Whether there is any maximum weight, either laden or unladen, I have been unable to discover. Probably the scale ought to rise so sharply as to make unladen weights above 5 tons and laden weights above 12 tons unprofitable to their owners.

A similar inversion of the accepted principles of taxation appears in the scale applied to road locomotives; *e.g.*

Weight.	Duty.	Tax per ton.
Up to 8 tons	£25	£3 2*s*. 6*d*. and over
8 to 12 tons	£28	£2 6*s*. 8*d*. to £3 10*s*.
Above 12 tons	£30	£2 10*s*. and under.

It must be presumed that this low rate of tax per ton is based on the assumption that road locomotives travel at a slow speed and therefore do not " hammer " the road surface so heavily as a heavy lorry or a motor omnibus.

A motor omnibus, since it is designed to travel all its working day at a good pace (like a passenger train), does more damage to the roads than a motor van of the same weight. Moreover, it carries on all its business in streets provided by the ratepayer; therefore we may fairly tax it at a high rate.

Wherever the suggestion is made that road vehicles should be made to pay more taxation, those interested in such vehicles argue that " road transport means cheap transport," and that the proposed taxation will increase the cost of transport. They are wrong in both statements. Road transport is not really cheap, it only *seems* cheap because the road-user throws the greater part of his running costs on the ratepayers, who have to construct, light and police his " permanent way "—the public roads. The small saving per ton made by transferring traffic from railways

to roads is counterbalanced many times over by the extra cost of repairing roads and bridges. In fact the real cost of transport includes all the charges which must be defrayed in order to make the transport possible. If the actual damage to the roads, with the cost of reconstruction, widening and repairing, were added to the cost of police on point duty and the rebuilding of bridges, it would be found that the real cost of road transport is very much higher than it seems to be. Some heavy vehicles, on rising ground where the road surface has been loosened by frost and rain, will do more damage in a day or perhaps in an hour than will be paid for by their annual licence fee.

If road transport were as cheap as people imagine, we should find roads being built by private enterprise. On the contrary, no contractor engaged on a big job such as a barrage, which involves the transfer of much material, thinks of constructing macadamised roads and running petrol-driven or steam lorries over them. He lays down steel rails and runs locomotives drawing a train of trucks.

This preference for rails is the general principle which would apply in all countries, but a new factor has been introduced (in this country) by the Railways Act, 1921, which makes the trading and travelling public the senior partner of the railway shareholder. Applying the principle of the Excess Profits Duty, the Act says that any savings or increased profit above the " standard revenue " shall be divided in the proportion of 80 per cent. to the public in lower charges, and 20 per cent. to the shareholder in higher dividends. On the other hand, if the existing rates and fares do not yield the " standard revenue " contemplated by the Act, the companies may apply to the Tribunal for power to raise their rates and fares.

Therefore, when road transport (subsidised by the ratepayer) takes away traffic from the railways, it throws a double burden on the whole community, first by increasing the cost of road repair, secondly by increasing the charges for goods and passenger traffic which *must* go by railway. It happens also that the basic trades of this country—iron, steel, coal, engineering and shipbuilding—are precisely those which do *not* benefit by cheap road transport, since their products are too heavy or bulky in comparison with their value to be carried otherwise than by rail or water. These trades, therefore, actually suffer when traffic of a higher class is diverted from rails to roads, because they require even cheaper railway rates, while the effect of the diversion is to make railway rates higher.

Rates of another kind may be increased through the diversion of traffic from railways to roads, not only because the new road traffic increases the cost of road repair, but also because the railway companies are the chief ratepayers, contributing nearly £8 millions a year to the funds of our local authorities. As the net revenue of the railway companies grows smaller, part of the loss may be thrown on the local authorities, since railways, unlike other property, are rated on their actual profits; the companies may use their falling revenues as a reason for demanding a lower assessment.

At present the scale of taxation actually encourages the use of the heaviest motor vans, which do most damage and are also most objectionable to householders, pedestrians and cyclists. If a firm is considering whether it will buy five 1-ton vans or one 5-ton van, the Treasury (or the Ministry of Transport) steps in and says, "We will give you a premium of £50 a year if you will buy the 5-ton van," because the licence duty on this van is only £30, while the duties on the five small vans come to £80 a year.

J. E. ALLEN

RECENT OFFICIAL PAPERS

Guide to Current Official Statistics of the United Kingdom. Vol. III (1924). In continuation of Vol. II (1923). Being a systematic survey of the statistics appearing in all official publications issued in 1924 and in certain selected publications issued in 1925. (H.M. Stationery Office, 1925. 1*s*. net.)

THIS volume, prepared by the Permanent Consultative Committee on Official Statistics, is the third issue of a detailed annual survey of the statistics published by Government Departments in Great Britain and Northern Ireland. It relates chiefly to the year 1924. It has not been considered necessary to reproduce the Appendix, Volume Two, which summarised publications of permanent statistical interest issued prior to the year reviewed in that volume. The statistics relating to Northern Ireland are fuller in this volume than in its predecessors.

Kenya: Tours in the Native Reserves and Native Development in Kenya. 1926. Cmd. 2573.

IN the Nyanza Province the Acting Governor "was met everywhere by large gatherings of natives, who reflected in their

appearance the general air of prosperity and well-being which now prevails throughout the Province." In one district only had labour been compulsorily obtained for railway work. Throughout the Province the natives go out cheerfully and willingly to work without any compulsion. In the Kitui district there had been discontent—originating in one instance from the complaints of the girls who had been deprived of their dancing partners. But the Acting Governor "was informed by the District Commissioner that the greater part [of deserters] had now returned to work without the necessity for any prosecutions, and having got used to the task required of them have settled down quite happily." In the Kikuyu province much is expected from the native Councils. Their readiness to impose taxes for educational and medical purposes is remarkable.

Institut de Conjoncture. Revue générale de l'activité de l'Institut de Conjuncture. (Édition Financière du Comm. du Peuple pour les Finances U.R.S.S. Moscou, 1925.)

THE Conjuncture Institute which issues this brochure is an advisory body attached to the Commissariat of Finance. Its advice on financial policy is said to carry considerable weight with the Soviet Government. According to the review the activities of the Institute are directed partly to practice and the needs of the hour, partly to scientific research. In the first department concrete economic data are ascertained; index-numbers being freely employed not only with regard to prices, but also other economic quantities. Thereby it is hoped to construct an economic barometer which may afford power of prevision. In the scientific department the methodology of these computations is investigated.

F. Y. E.

The Fifteenth Report of the Development Commissioners for the Year ended the 31st March, 1925. House of Commons, 147. 3*s*. 6*d*.

THE Fifteenth Report of the Development Commission resembles in form those of previous years. It contains a full statement of the grants made during the year 1925 from the Development Fund for agricultural education and research, for the development of rural industries and village social life, for fisheries investigations, and for the construction and improvement

of harbours. These subjects indicate the wide field covered by the work of the Commissioners, but grants for the development of agriculture are the most important part of it. The introduction to the detailed report provides a well-reasoned statement of the case for public assistance and of the difficulties inherent in the attempt to translate the results of research work into practice on the farm.

Association of Teachers of Economics

The first annual Conference of the Association of Teachers of Economics—a lineal successor to the informal conferences of the last two years—assembled at Birmingham on January 5th and dispersed on January 8th. Its meetings, in which from thirty to forty members of the Association participated, were held at Queen's College, Edgbaston. A number of those who were present were accommodated in the College, and the Association is much indebted to its Principal and Council for the hospitality shown to them.

Afternoon excursions were arranged to Bourneville and (through the kind offices of Professor Martineau) to the works of Messrs. W. and T. Avery, and added considerably to the attractiveness of the meeting.

Three papers were read to, and discussed by, the Conference. Dr. A. Redford, who is shortly to return to Manchester from the London School of Economics, opened the proceedings with an examination of the value of Economic History as a University subject. His plea for a fuller examination of its possibilities was both stimulating and provocative: Dr. Maud Sellers, Professor J. F. Rees, and many others took part in the subsequent discussion. Dr. Redford was followed by Dr. A. G. Ruston, of Leeds, on the subject of Producers' Co-operative Societies in Agriculture. Dr. Ruston's conclusions, the result of first-hand inquiry over a wide field, were made intelligible to the non-expert in an admirable series of diagrams, and were further illuminated by the sagacious comments of Mr. Ashby, who presided. The discussion, if it revealed little acquaintance with the special problems of agriculture, showed much appetite for further knowledge, and there are already rumours of a determined assault on the problems of rural economics at the Conference next year.

"Some Comments on Current Theories of Profit"—a paper read by Mr. Maurice Dobb—gave a further, and unfamiliar, turn

to the economic kaleidoscope, and one which was widely appreciated. Mr. Dobb, in his analysis, followed closely the lines of his recently-published book. He made out an effective case for an "institutional" approach to the study of his subject, and provoked a discussion which was animated throughout and at intervals became coherent. Mr. D. H. Robertson, briefed at short notice in the interests of economic orthodoxy, was especially convincing.

At the final session of the Conference, Professor Clay, fresh from his labours in South Africa, gave some account of the economic conditions which led to the setting-up, by the Dominion Government, of the Commission of which he was a member. There was also a short and satisfactory "business" meeting, presided over by Professor J. F. Rees. The Association, according to its Hon. Secretary, is in a flourishing condition; 110 members—or about 90 per cent. of those who are known to be eligible—have paid their subscriptions for 1926. The following were elected to the Committee: Mr. A. W. Ashby, Sir William Beveridge, Professor A. M. Carr-Saunders, Professor H. Clay, Dr. P. S. Florence, Professor J. F. Rees and Mr. Hubert Phillips (Hon. Secretary and Treasurer). Of these, Mr. Ashby, Professor Carr-Saunders and Dr. Florence are new members.

The Association will hold its next Conference in London, January 7–10, 1927. Communications should be addressed to Mr. H. Phillips at 22, Grosvenor Mansions, 82, Victoria Street, S.W. 1.

H. P.

Australian Notes

(*From our Australian Correspondent*)

Controversy concerning the method of rating properties for the purpose of raising municipal revenue has recently arisen in Melbourne. Should municipal rating be based on the unimproved land values or on the improved property values? In several municipalities a referendum has been taken on the subject. The poll in the larger centres resulted in the defeat of the proposed optional tax on land values, advocated mainly on the ground that it must force vacant land into use, and relieve the buildings (houses, shops, factories, skyscrapers, theatres, etc.) from contributing an undue share to the municipal revenue. There is justification for the view that a man should not be permitted to hold land vacant indefinitely for the purpose of annexing any

increased value created by the efforts of the community generally. But practically it is found that municipal taxation. if based on unimproved land values, may tend to a reduction of the size of allotments, so that in place of suburbs of open spaces use may lead to abuse, and congested areas arise with minimum residential allotments, creating the possibility of future city slums. This, too, in a country with large areas of land only partly developed by a comparatively small population, and where the rise of land values may be readily observed. The proposal to adopt the unimproved value as the basis of municipal taxation, which method already obtains in New South Wales, opens up an extremely complicated subject, and probably few of the general body of urban ratepayers would claim to a complete understanding of the effect and incidence of an alteration from existing rental value basis.

IN Australia we have seen land values originate with the inward flow of population, and sometimes recede steadily with its ebbing tide, as in the case of waning mining townships; and even in urban centres vicissitudes of valuation occur. Like the circling ripple over the pond caused by a pebble thrown in, the purchase of vacant land in an area deemed suitable for development by a speculative builder, who for profit on buildings to be erected and sold may have secured the land at an enhanced price, paying instalments spread over a term, will affect other land values in the vicinity, as affording evidence to the Government Department of an immediate increment in land values necessitating an increased rate of tax for the future. Cases of speculative purchase of tiny home plots by means of only £1 deposit have been known to occur, and these even cannot escape consideration by the assessing authority in relation to the question of advancing values.

BEHIND the proposition to tax unimproved land values we find the supporters of the Single Tax League, which maintains that " those who hold exclusive possession of land or natural resources should pay to the community adequate compensation for this privilege, such compensation to be secured through the taxing power of the State, thereby preserving competition, lowering expenses and reducing the cost of living, whilst incidentally the spending of such revenue should create values greater than the amount of the expenditure by Government." In New South Wales one effect of the taxation of land values in urban areas has

been that, where the Valuer-General has increased the assessment of land values, it has been found that the Municipal authorities, instead of adjusting the burden by charging a lower amount on the £, have generally seized the chance to secure a larger revenue for expenditure by continuing to charge the existing rate of tax on the higher assessment. In some of the Sydney suburbs rates are now 5*d.* in the £ on the unimproved capital value, made up of general purposes rate (including main roads rate) 4⅓*d.*, and loan rate two-thirds of a penny. Water and sewerage rates, which are additional, are still levied on rental values by a separate taxing body. The City Assessor of Sydney states that he has enough evidence of sales of properties in the city at such unreasonably increased prices as to warrant a considerable increase in land values generally. Such increment can hardly be due to any sudden increase of population, but has arisen partly from increased prices operating as an aftermath of the war.

It has been held that urban site values and building values (from which the actual rental value is derived) are different in origin and kind. The former is derived from the flow of population to a particular civic centre or spot, the latter is obviously due to the expenditure of labour and capital. These forces may move in opposite directions, and hence the question of "ability to pay taxation" needs consideration. When once beneficial ownership has been achieved, and the site permanently devoted to a specific employment, the nature of the occupation may fix its future remunerativeness. Buildings will deteriorate with age, whilst site values from scarcity or otherwise may go on increasing. Yet the rental derived from actual occupation of premises may not improve—either owing to a long lease, through limitation of utility or commercial value of the building, or through too high a price having been paid for the land. Under the system of land value taxation, it has been pointed out, the Court takes into account only its valuation of the land. Whilst in some suburban centres rates and taxes have increased fourfold since 1915, the rental return which is the real basis of income remains the same; so that after necessary repairs have been executed, the net balance of income left for the owner is inadequate as compared with shares or debentures returning a safe 8 per cent. income.

At the present time legislation is projected by the New South Wales Government for extending the area of operations of the present Fair Rents Court, designed for the protection of tenants

generally. Rent is the source of income from which taxes can be paid, and hitherto, in computing a " fair rent," taxes, including property income tax and federal land tax, have been included, but it is proposed to sweep aside this provision to the detriment of property owners, whilst the further " squeezing of the water out of the land value monopoly by taxation " must prove a deterrent to real progress.

A LITTLE matter, but one which has excited considerable interest in New South Wales, is that of the desired discontinuance of demonstrations of loyalty in the public schools of the State. The Public School Teachers' Federation, whilst asserting that the loyalty of the public schools is unquestioned, has requested the Minister for Education to abolish the prescribed recital by pupils each Monday morning of the formula attending salutation of the National flag : " I honour my God, I serve my King, I salute my flag." It has been stated by some of the teachers that " in certain schools the spirit of the ceremony is not such as would nurture any respect for either God, King or Country, and that the ceremony tended to cheapen patriotism. It was better to do things and not talk about them." The result has been that the Minister has withdrawn the compulsory feature of the departmental instruction, and will allow the schools to inculcate the love of country and loyalty along unstereotyped lines.

RECENT papers read before the N.S.W. Branch of the Economic Society have been—(1) by Mr. A. Jobson on the movement of the State public debt since 1914 and the mode of expenditure of public loan moneys, (2) by Mr. A. H. B. Fitzhardinge on the Australian banking system and the cash reserves of Australian banks, and (3) a paper by Mr. O. St. Clair in criticism of recent expositions of the quantity theory of money.

A. DUCKWORTH

Sydney, October 20, 1925.

THE INDIAN ECONOMIC CONFERENCE

THE Ninth Session of the Indian Economic Conference was held at the Senate House, University of Madras, from January 4–7, 1926. The Conference is the Annual Meeting of the Indian Economic Association, which now has a membership of 115, teachers and those especially interested in economic science, representing all parts of India.

Within the last year three members of the Indian Economic Association have been appointed by Government to fill important positions. Professor Burnett-Hurst of Allahabad was appointed a member and Secretary of the Indian Economic Enquiry Committee; Dr. John Matthai of Madras was given a place on the Indian Tariff Board; and Professor A. J. Saunders of Madura was appointed a member of the special Committee to investigate the problem of unemployment in the Madras Presidency.

There were 55 members present at the Madras Conference from such widely separated university centres as Lahore, Benares, Lucknow, Allahabad, Patna, Calcutta, Bombay, Dacca, Hyderabad, Mysore City, Madras and Madura. In addition many interested visitors and a large number of students of Economics from the Madras colleges were in constant attendance, so that the interest was maintained all through the session.

The Chairman of the Reception Committee, Sir R. Venkatratnam Naidu, Vice-Chancellor of the University of Madras, delivered the Welcome Address in his usual able manner. The Conference was formally opened by His Excellency Viscount Goschen, Governor of Madras. The Conference was particularly fortunate in having Lord Goschen to open its proceedings, because his father was one of the founders of the Royal Economic Society in 1890. Great hopes are entertained that the new Viceroy, an agriculturist, will distinguish his term of office by concerting methods which will result in a great improvement in Indian agriculture, and consequently the Governor's opening speech dealt mostly with agricultural problems. Among other things he said:

"In this crusade, which I hope sincerely to see undertaken ere long, it will need the combined efforts of all of us to overcome the great difficulties which have to be faced in the conservatism of the ryot, his lack of credit and the smallness of his subdivided holdings. To deal successfully with the first of these obstacles it will be necessary to invoke the aid of public-spirited citizens, men of influence and position, more especially the big landholder, who could do much by example and demonstration to teach the value of up-to-date and scientific methods. For a partial solution of the credit question we may perhaps look to the development of co-operative banks, which are already doing something to meet this difficulty which confronts the small farmer in India. Increased productivity must, however, be the main foundation of improved credit. The 'fragmentation of holdings,' as it is termed, to which I have referred is a real and pressing administrative problem. But it is engaging the attention of economists

like yourselves, and we need not despair of some practical solution being found."

The Madras Conference was also fortunate in having for its President, Professor C. J. Hamilton of Patna University. On coming to India Professor Hamilton, who had been secretary of the Royal Economic Society, organised the first Indian Economic Conference, and he has taken a keen interest in the work of the Association since its inception. The Presidential Address was an able discussion of "Economic Policy and the Future," dealing with two important questions: Towards what form of Economic Society are we tending, and to what form should we strive? The President's answer to those questions may be summarised as follows:

"I believe that ethical no less than economic progress of mankind rests fundamentally upon the maintenance of the forces of competition. If real progress is to be made, we must do our best to safeguard two things, competition and freedom. Freedom, to my mind, is the greatest of human possessions, and I feel certain that the world of socialism or communism would mean the negation of freedom, and I think it is not at all improbable that it would mean the negation of even common honesty."

The programme of the Conference was divided into four sections, dealing with Indian Official Statistics, Rural Economics, External Capital in India, and the Problem of Second Chambers in India. The last subject was an excursus into the realm of political science, but it was decided not to continue the experiment. The two subjects that produced the best papers and initiated the most interesting and helpful discussions were Rural Economics and the question of External Capital in India.

The Social side of the Conference was well provided for in a series of pleasant functions. Lord and Lady Goschen were "At Home" at Government House to the members and delegates of the Conference. A visit was made to the Buckingham and Carnatic Cotton Mills, and the delegates were much impressed with the welfare work that is carried on in those mills, such as schools for the children, a model village for the workers, the emphasis on saving and banking facilities, and other splendid social institutions. The Hon. Sir S. R. M. Annamalai Chettiar, one of the Governors of the Imperial Bank of India and a member of the Council of State, gave a tea to the Conference members. Trips were also made to the Chrome Leather Factory and to the Madras Harbour. These social items in the programme were much appreciated by the delegates.

It was the general opinion of the members present that the 1926 Conference was very interesting and helpful. The next Conference goes to Calcutta, with Principal M. L. Tannan of the Sydenham College of Commerce, Bombay, as President.

A. J. S.

Correspondence

The Joint Editors,
The Economic Journal,
9, *Adelphi Terrace, Strand, W.C.*

Dear Sirs,

I have been disappointed not to find in the recent issues of the Journal any reference to the many recent works and pamphlets on the new view of Welfare economics as distinct from financio-economics.

I presume that your members and readers must be well aware from the lessons taught by the Great War and since, that Barter economics, as the Americans term it, gives the clue to nearly all the social troubles experienced both in England and Europe, not to mention sundry minor dislocations in the Labour market in the U.S.A.

You told me some months ago that the Douglas theorem of price analysis is " logically fallacious," but I have found nothing either in the Journal or in the writings of orthodox economists to show where the fallacy arises. *Vide* also *The Flaw in the Price System*, by P. W. Martin of Geneva, October 1923.

You must surely admit that the aggregate of retail prices asked by tradesmen is greater than the sum distributed to the community in the process of producing the goods in question? This phenomenon must result from the fact that these prices contain several items of cost besides the disbursements of wages, salaries, commissions and fees, such as depreciation of plant, reserves, insurance and interest, which items do not appear anywhere or anywhen as purchasing power with which to acquire such goods.

The fact that this country has been able to carry on under existing conditions can be explained only by the return or yield on her foreign investments, trade losses and a gradual increase in the volume of gold absorbed into the banking system, on which a proportionately larger volume of bank credit has been built up.

You must also admit that the desire of the consumer is the ultimate basis of all value which appears as market value when he

can obtain effective demand or money demand. Now this money existed prior to such demand.

2. Referring to Mr. J. Sykes' article in the December issue, which gives three tables of working percentages based upon Total Working Resources of London banks up to only 1914, but of banks in England and Wales up to 1924, and again of the same up to only 1915, it would be of much greater interest if these tables were based upon the subscribed Capital of these banks, since their resources are very many times the greater.

To show that their expenses are greater than the net profits based upon total resources, especially when this latter is a minus quantity as shown in Table III, is apt to be misleading. I shall be grateful if Mr. Sykes can tell your members or me what is the present percentage of working expenses to dividend distribution or to gross money profits. These latter are presumably enormous.

It has been suggested that only 15 per cent. of the population have banking current accounts in the U.K. to-day, and that it would pay the banks to defray the stamp duty on cheques, since the resulting increase of a/cs current would give a much larger command of "cash," and thus enable them to extend their loan and discount business proportionately.

It is noticeable that Mr. Sykes' figures do not include Scotland, where the development of banking has reached its greatest and widest scope of service.

3. It has been stated that the payment of cash into a banking account puts currency out of circulation and thereby converts a circulating medium into a book-credit or medium of transfer only, carrying the option of cash withdrawal but exercised in practice only to the extent of some 12 per cent.

This fundamental change in the nature of say three-fourths of our money, which is thus capable of expansion and contraction through loans at the discretion of the banks, has led to the control of money power by the banking system in favour of their own money interests, and sometimes contrary to the welfare of their clients and the community.

Money to be of use must circulate and promote trade, but money removed from circulation interferes with the free flow of consumption and merely tends to promote useless production or a glut of goods at unsaleable prices.

The true equation of Supply and Demand appears in Value, not in price through pre-existing money. Price has become the equation between the selling offer of the retailer and the ability and desire of the consumer to pay. All prices are built up from

this basis now, so that if the selling price is too high to meet effective demand, production is restricted, goods tend to accumulate and workers to become idle.

We seem to have mastered the problem of production but to have overlooked the necessity to effect its constant distribution through prices.

4. Your JOURNAL "is intended to represent the various shades of economic opinion . . . not of one school of economists, but of all," but in practice you are ignoring lately the latest discovery, *i.e.* that better and simpler expositions of economic science are based on retail prices paid, working backwards and upwards to costs incurred, and not vice versa through speculative production.

Our present system of hiring the command of gold through Bank rate, on which to base the issue of bank credit to the money market and indirectly to trade and enterprise, seems to leave the control of affairs to those who possess such gold, because we are unwilling to purchase gold in the open market by raising the sterling price. A small rise in sterling price would not appreciably affect the internal purchasing power of our currency, but it would relieve our trade of the burden of higher interest. It might react on the dollar gold exchange and thus cause a withdrawal of the gold thus obtained, and this process would be cumulative.

This argument is based on the assumption, however, that America needs this new gold, which of course is not the case; on the contrary.

The attitude of South Africa in re-introducing a gold currency, and the position of Australia, who had to purchase gold from America for a currency basis although she herself produces the metal, complicates our position.

As regards the Rupee, which if it had been left free to adjust itself to the balance of trade would now stand somewhere near 2*s.* instead of 1*s.* 6*d.*, brings India into competition with the Bank of England as a buyer of gold with rupees, and thus hinders the expansion of our basis of credit.

All these schemes are attempts to make trade relationships fit into artificial arrangements for the stabilisation of the exchanges; they hinder natural expansion and the progress of development for the benefit of the monied interests.

The argument that fluctuating exchanges militate against trade is much weakened by the efficient machinery of the Exchange banks, who are quite capable of selling an option of a fixed forward rate for a small consideration, which can thus relieve the trader of undue risk when calculating his quotation in a foreign currency.

5. The following illuminating passage from *The Flaw in the Price System* needs careful consideration : " So long as the circulating medium of exchange is put to its two uses of (1) inducing production (*i.e.* paying wages and dividends) and (2) buying the production thus induced, *alternately*, industry can sell all it makes. But it must be alternately. When part of the community's purchasing power is used not to buy goods but to add to working capital, this necessary alternation is not being observed : purchasing power is being used twice running for the same purpose. The circulating medium has short-circuited, as it were. Money which should have been used to purchase goods is being used, for the second time in succession, to induce further production. As an inevitable consequence, more production will be induced than there is purchasing power available with which to buy it."

6. Your members may be interested to note that some £88 m. of Bank of England notes are now in circulation, and since these notes carry the option to purchase gold bars up to half the stock in London, it seems somewhat idle to assume that our foreign obligations can be adjusted by the export of gold through the banking department of the Bank of England whose Reserve stands to-day below £117 m., as it has been slowly drained away by the call of foreign neighbours for settlement of our excessive imports this year.

7. I appeal to you, gentlemen, to instruct your members to realise the responsibility which rests with your Council to advise and to assist our Government to take all necessary steps to put our national financial machinery in gear with industrial development before a serious breakdown occurs, when reason will have scant chance of making itself heard or attended to.

Yours faithfully,

H. R. SCOTT.

3, *Rotherwick Road,*
Golder's Green, N.W. 11.
December 28, 1925.

OBITUARY

FRANCIS YSIDRO EDGEWORTH
1845–1926

FELLOWS of the Society throughout the world will have read with deep regret of the death of Professor Edgeworth from pneumonia on February 13, 1926, with but a few days' illness, just after his eighty-first birthday. Professor Edgeworth was working on this issue of the JOURNAL up to the last day of his life, and his fellow-editor received a final letter from him about its business after the news of his death. Edgeworth was the first Editor of the ECONOMIC JOURNAL and designed and moulded it. He had been continuously responsible for it as Editor, Chairman of the Editorial Board, and Joint Editor from the first issue in March 1891 down to this present issue in March 1926. Only a few, perhaps, can appreciate as fully as his fellow-editor, who writes this notice,[1] the extent of Edgeworth's devotion and services to the JOURNAL, and the irreplaceable loss which we have suffered in his death.

Francis Ysidro Edgeworth was the last in the male line of a famous family—illustrating his own favourite Law of Averages; for his great-great-grandfather, Francis Edgeworth (Protestant Frank), "married successively several wives," [2] and his grandfather, the eccentric and celebrated Richard Lovell Edgeworth, married four wives [3] and had twenty-one children, of whom seven sons and eight daughters survived him. F. Y. Edgeworth himself was the fifth son of a sixth son. Yet, in 1911, after all the other male members of the family had died without leaving male issue, he succeeded to the family estate of Edgeworthstown, Co. Longford, where the Edgeworths, whose name was taken from Edgeware, formerly Edgeworth, in the County of Middlesex, had established themselves in the reign of Queen Elizabeth. After his succession he had taken interest in gathering up family records and in seeking to restore Edgeworthstown House to

[1] The few days at my disposal for its compilation before the JOURNAL goes to press, and the lack of time to submit proofs to those who might correct them, must be my excuses for its imperfections and possible inaccuracies and omissions.

[2] *Memoirs of Richard Lovell Edgeworth*, vol. i, p. 15, where many entertaining stories may be found of Edgeworth's forbears. There are male descendants of Essex Edgeworth, a brother of "Protestant Frank," to which branch the Abbé Edgeworth belonged; but these must be fourth or fifth cousins.

[3] His last wife, F. Y. Edgeworth's grandmother, under whose roof at Edgeworthstown he lived for the first twenty years of his life, survived until 1865, 121 years after her husband's birth and her own 96th year.

something of its former tradition under the care of a married niece, Mrs. Montagu, and her husband. Whilst visiting Ireland every summer in recent years, he did not live at Edgeworthstown, but declared that he looked forward to a happy "old age"—though when, if ever, he would have deemed this period to have arrived, I do not know [1]—in the home of his forefathers.

Edgeworth was a notable link with celebrities of almost a century ago—a nephew of the novelist Maria Edgeworth,[2] who was born in 1767 and was already famous in the eighteenth century, and a first cousin of the poet Thomas Lovell Beddoes, who died in 1847. Sir Walter Scott sent a copy of *Waverley* to Edgeworth's aunt on its first publication, and wrote in the last chapter of it (and afterwards in the preface to the novels) that it was her descriptions of Irish character which first encouraged him to make a similar experiment in Scotland; and Jane Austen sent her a copy of *Emma* on its first publication; and Macaulay sent her his *History*, which contains a reference to her. And in her later days she had visited Ricardo at Gatcombe Park.

F. Y. Edgeworth's father, Francis Beaufort Edgeworth, born in 1809, who had been educated at Charterhouse [3] and Cambridge, where he was a prominent member of Sterling's set, has been immortalised in none too flattering terms by Thomas Carlyle, who devoted some three pages to him in his *Life of John Sterling* (Part II, chap. iv). "Frank was a short neat man," Carlyle wrote, "of sleek, square, colourless face (resembling the portraits of his Father), with small blue eyes in which twinkled curiously a joyless smile; his voice was croaky and shrill, with a tone of shrewish obstinacy in it, and perhaps of sarcasm withal. A composed, dogmatic, speculative, exact, and not melodious man. He was learned in Plato and likewise in Kant; well-read

[1] He was ashamed, and not proud, of his years, and enjoined on me most seriously to make no reference in the ECONOMIC JOURNAL, as I had desired to do, to his eightieth birthday, on the ground that he did not like to be connected with suggestions of senility and incapacity. His was:

"An age that melts in unperceiv'd decay
And glides in modest innocence away."

[2] Edgeworth's father Frank was, in fact, the hero of several of Maria's tales. But (according to T. Mozley, *Reminiscences*, vol. i, p. 41) "Maria Edgeworth cared for the actual Frank as much as he cared for her, which was so little that it was better not to mention her."

[3] T. Mozley's account of him (*Reminiscences*, p. 41) is as follows: "He was a little fair-haired, blue-eyed, pale-faced fellow, ready and smooth of utterance, always with something in his head and on his tongue, and very much loved in a small circle at Charterhouse. With a fertile imagination and with infinite good-nature he would fall in with any idea for the time and help you on with it. . . . At school he was on Perpetual Motion, so often the first round in the ladder that leads nowhere."

in philosophies and literatures; entertained not creeds, but the Platonic or Kantian *ghosts* of creeds; coldly sneering away from him, in the joyless twinkle of those eyes, in the inexorable jingle of that shrill voice, all manner of Toryisms, superstitions: for the rest, a man of perfect veracity, of great diligence and other worth."

The Reverend Thomas Mozley, who devotes a chapter to Frank Edgeworth in his *Reminiscences*, does not confirm this account of "the good little Frank," as Carlyle calls him: "My ear still testifies that there was sweetness in Edgeworth's voice, and gentleness in his manner and tone. . . . Frank Edgeworth was torn by conflicting systems, and I may add conflicting sensibilities, from childhood. He was a most sympathetic, self-sacrificing being." [1] In Sterling's own description one can gain a further glimpse of the inherited temperament of the son. "Edgeworth seems to me not to have yet gone beyond a mere notional life. It is manifest that he has no knowledge of the necessity of a progress from *Wissen* to *Wesen* (say, *Knowing* to *Being*). . . . I regard it as a very happy thing for Edgeworth that he has come to England. In Italy he probably would never have gained any intuition into the reality of Being as different from a mere power of Speculating and Perceiving; and, of course, without this he can never reach to more than the merest Gnosis; which taken alone is a poor inheritance, a box of title-deeds to an estate which is covered with lava, or sunk under the sea." [2]

But Sterling's friend was only one of the ingredients which went to the making of Francis Ysidro Edgeworth. For Francis Beaufort Edgeworth "had married a young Spanish wife, whom by a romantic accident he came upon in London." [3] Edgeworth's mother was a Spanish lady, Rosa Florentina Eroles. Frank Edgeworth, on his way to Germany to study philosophy in the company of his nephew, T. L. Beddoes, stopped in London to read in the British Museum, and accidentally made the acquaintance of Señorita Eroles, aged sixteen, daughter of a political refugee from Catalonia, married her within three weeks, and carried her off to Florence, where the couple lived for a few years. F. Y. Edgeworth was a good linguist, reading French, German, Spanish and Italian, and his mixed Irish-Spanish-French [4] origin

[1] *Reminiscences*, vol. i, p. 52.

[2] Hare's *Sterling*, p. lxxiv.

[3] Carlyle, *loc. cit.*

[4] His great-grandfather was Daniel Augustus Beaufort, the son of a French Huguenot refugee. A genealogical record of the Beaufort family and of the Edgeworths connected with them will be found in *The Family of the Beaufort in France, Holland, Germany, and England*, by W. M. Beaufort, printed for private circulation in 1886.

may have contributed to the markedly international sympathies of his mind.

The external landmarks of Edgeworth's life are soon told. He was born at Edgeworthstown House, where, after returning from Florence and an unsuccessful attempt at schoolmastering, Frank Edgeworth had settled down to manage the family property, on February 8, 1845. His father died when he was two years old. He was brought up at Edgeworthstown under tutors until he went to Trinity College, Dublin, at the age of seventeen. His memory and agility of mind were already at that time remarkable. He told his Oxford cousins [1] only a few weeks ago how well he still remembered the poetry he had learnt in his youth, and complete books of Milton, Pope, Virgil and Homer would readily come to his memory. At the end of his life he was one of the very few survivors of the tradition of free quotation from the Classics on all occasions and in all contexts.[2]

He entered Oxford as a scholar of Magdalen Hall, proceeding from there to Balliol, where he obtained a First Class in *Lit. Hum.* There is a tradition in Oxford concerning his "Viva" in the Final Schools. It is said that, being asked some abstruse question, he inquired, "Shall I answer briefly, or at length?" and then spoke for half an hour in a manner which converted what was to have been a Second Class into a First. He was called to the Bar by the Inner Temple in 1877, and spent some years in London with but straitened means, the youngest son of a younger son of an impoverished Irish estate, before he could find, amidst the multiplicity of his intellectual gifts and interests, his final direction. He became a Lecturer in Logic and afterwards Tooke Professor of Political Economy at King's College, London. In 1891 he succeeded Thorold Rogers as Drummond Professor of Political Economy at Oxford, and was elected a Fellow of All Souls, which became his home for the rest of his life. He retired from the Oxford Professorship with the title of Emeritus Professor in 1922. He was President of the Economic Section of the British Association in 1889 and again in 1922. He was an ex-President of the Royal Statistical Society, a Vice-President of the Royal Economic Society, and a Fellow of the British Academy.

At Balliol Edgeworth had been a favourite of Jowett's, and it may have been from Jowett, who was always much interested

[1] Mrs. A. G. Butler and her daughter, Miss C. V. Butler, to whom I am much indebted for some of the foregoing particulars.

[2] Like his grandfather before him, as Maria Edgeworth records.

in Political Economy and was occasionally teaching the subject at about that time, that he received his first impulse to the subject. The most important influence, however, on his early economic thought was, I think, Jevons, whom he got to know in London, where his Hampstead lodgings were but a short distance from Jevons' house. His contact with Marshall, for whom his respect was unmeasured, came a little later. In *The Academy* for 1881 Marshall reviewed Edgeworth's *Mathematical Psychics*—one of the two only reviews which Marshall ever wrote, the other being of Jevons' *Theory of Political Economy*. This review led to an acquaintanceship which ripened into a lifelong personal and intellectual friendship. Mrs. Marshall has many pleasant memories of Edgeworth's visits to Cambridge—though there can seldom have been a couple whose conversational methods were less suited to one another than Francis Edgeworth and Alfred Marshall.

To judge from his published works, Edgeworth reached Economics, as Marshall had before him, through Mathematics and Ethics. But here the resemblance ceases. Marshall's interest was intellectual and moral, Edgeworth's intellectual and æsthetic. Edgeworth wished to establish *theorems* of intellectual and æsthetic interest, Marshall to establish *maxims* of practical and moral importance. In respect of technical training and of lightness and security of touch, Marshall was much his superior in the mathematical field—Marshall had been second wrangler, Edgeworth had graduated in *Litteris Humanioribus*. Yet Edgeworth, clumsy and awkward though he often was in his handling of the mathematical instrument, was in originality, in accomplishment and in the bias of his natural interest considerably the greater mathematician. I do not think it can be disputed that for forty years past Edgeworth has been the most distinguished and the most prolific exponent in the world of what he himself dubbed *Mathematical Psychics*—the niceties and the broadnesses of the application of quasi-mathematical method to the Social Sciences.

It would be a formidable task to draw up a complete list of Edgeworth's writings,[1] almost entirely in the shape of contri-

[1] A list of twenty-five books and papers, published between 1877 and 1887 is to be found in an Appendix to his *Metretike*. I have recorded twenty-nine items, which bear on the Theory of Probability, ranging between 1883 and 1921 and partly overlapping with the above, in the bibliographical appendix to my *Treatise on Probability*. Thirty-four papers on Economics and seventy-five reviews are reprinted in his recently published *Papers relating to Political Economy*. His papers on Economics, Probability and Statistical Theory, other than reviews, must approach one hundred in number.

butions to learned journals. The earliest with which I am acquainted is his *New and Old Methods of Ethics*, published by Parker and Co. of Oxford in 1877, when he was thirty-two years of age—a paper-covered volume of 92 pages. It mainly consists of a discussion of the quantitative problems which arise in an examination of Utilitarianism, in the form of a commentary on Sidgwick's *Methods of Ethics* and Barratt's criticisms of Sidgwick in *Mind* for 1877. Edgeworth's peculiarities of style, his brilliance of phrasing, his obscurity of connection, his inconclusiveness of aim, his restlessness of direction, his courtesy, his caution, his shrewdness, his wit, his subtlety, his learning, his reserve—all are there full-grown. Quotations from the Greek tread on the heels of the Differential Calculus, and the philistine reader can scarcely tell whether it is a line of Homer or a mathematical abstraction which is in course of integration. The concluding words of Edgeworth's first flight would have come as well at the end of his long travelling :—

"Where the great body of moral science is already gone before, from all sides ascending, under a master's guidance, towards one serene commanding height, thither aspires this argument, a straggler coming up, *non passibus æquis*, and by a devious route. A devious route, and verging to the untrodden method which was fancifully delineated in the previous section; so far at least as the mathematical handling of pleasures is divined to be conducive to a genuinely physical ethic, *προοίμια ἀυτοῦ τοῦ νόμου*."

Another slim volume (150 pages), *Mathematical Psychics: An Essay on the Application of Mathematics to the Moral Sciences*, appeared in 1881.[1] This was Edgeworth's first contribution to Economics and contains some of the best work he ever did.[2] During the last months of his life he nursed the intention of reprinting a portion of it and several times consulted me in the matter. Whether he had got so far as to approach the Clarendon Press, which was his desire, but about which he felt a characteristic delicacy and hesitation, or to mark the precise passages which he wished to preserve, I am not aware.

The volume on Ethics had attempted to apply mathematical method to Utilitarianism. In *Mathematical Psychics* Edgeworth carried his treatment of "the calculus of *Feeling*, of Pleasure

[1] A paper entitled "Hedonical Calculus," which is reprinted in *Mathematical Psychics*, had appeared meanwhile in *Mind*, 1879.

[2] It is now a scarce volume, difficult to obtain. A few copies are available, which were in Edgeworth's own possession, and which I am in a position to hand over to such public libraries, not possessing a copy, as may apply to me for them.

and Pain" a stage further. The Essay consists of two parts "concerned respectively with principle and practice, root and fruit, the applicability and the application of Mathematics to Sociology." In the First Part, which is very short, "it is attempted to illustrate the possibility of Mathematical reasoning without *numerical* data"—a thesis which at the time it was written was of much originality and importance. "We cannot *count* the golden sands of life; we cannot *number* the 'innumerable' smiles of seas of love; but we seem to be capable of observing that there is here a *greater*, there a *less*, multitude of pleasure-units, mass of happiness; and that is enough."

The Second Part contains the roots of much of Edgeworth's work on mathematical economics, in particular the treatment of Contract in a free market and its possible indeterminateness; and it is here that his famous *Contract-Curves* first appear.

I have dwelt on these two early works at disproportionate length, because in them, and particularly in *Mathematical Psychics*, the full flavour and peculiarity of Edgeworth's mind and art are exhibited without reserve. The latter is a very eccentric book and open to mockery. In later works, it seems to me, Edgeworth did not ever give quite a full rein to his natural self. He feared a little the philistine comment on the strange but charming amalgam of poetry and pedantry, science and art, wit and learning, of which he had the secret; and he would endeavour, however unsuccessfully, to draw a veil of partial concealment over his native style, which only served, however, to enhance the obscurity and allusiveness and half-apologetic air with which he served up his intellectual dishes. The problem of the inequality of men's and women's wages interested him all his life and was the subject of his Presidential address to Section F of the British Association in 1922; but who in space and time but Edgeworth in the 'eighties, whose sly chuckles one can almost hear as one reads, would treat it thus:—

"The aristocracy of sex is similarly grounded upon the supposed superior capacity of the man for happiness, for the ἐνεργεῖαι of action and contemplation; upon the sentiment:—

> 'Woman is the lesser man, and her passions unto mine
> Are as moonlight unto sunlight and as water unto wine.'

Her supposed generally inferior capacity is supposed to be compensated by a special capacity for particular emotions, certain kinds of beauty and refinement. Agreeably to such finer sense of beauty, the modern lady has received a larger share of certain *means*, certain luxuries and attentions (Def. 2; *a sub finem*).

But gallantry, that 'mixed sentiment which took its rise in the ancient chivalry,' has many other elements. It is explained by the polite Hume as attention to the weak, and by the passionate Rousseau φυσικωτέρως . . . . Altogether, account being taken of existing, whether true or false, opinions about the nature of woman, there appears a nice consilience between the deductions from the utilitarian principle and the disabilities and privileges which hedge round modern womanhood." [1]

Edgeworth next proceeded to the second great application of mathematics to the Moral Sciences, namely, its application "to *Belief*, the Calculus of Probabilities," which became perhaps his favourite study of all. In 1883 and 1884 he contributed seven papers on Probability and the Law of Error to the *Philosophical Magazine*, to *Mind* and to *Hermathena*. These were the first of a very long series of which the last, one more elaborate discussion of the Generalised Law of Error, still remains to appear in the *Statistical Journal*.

As regards Probability proper, Edgeworth's most important writings are his articles on "The Philosophy of Chance" in *Mind*, 1884, and on "Probability" in the *Encyclopædia Britannica* (revised up to 1911). Edgeworth began as an adherent of the Frequency Theory of Probability, with a strong bias in favour of a physical rather than a logical basis for the conception, just as he was an adherent of the Utilitarian Ethics with a bias in favour of a physical rather than a metaphysical basis. But in both cases his mind was alive to the objections, and in both cases the weight of the objections increased in his mind, as time went on, rather than diminished. Nevertheless, he did not in either case replace these initial presumptions by any others, with the result that he took up increasingly a sceptical attitude towards philosophical foundations combined with a pragmatic attitude towards practical applications which had been successfully erected upon them, however insecure these foundations might really be. The consequence was that the centre of his interest gradually passed from Probability to the Theory of Statistics, and from Utilitarianism to the Marginal Theory of Economics. I have often pressed him to give an opinion as to how far the modern theory of Statistics and Correlation can stand, if the Frequency Theory falls as a logical doctrine. He would always reply to the effect that the collapse of the Frequency Theory would affect the *universality* of application of Statistical Theory, but that large masses of statistical data did, nevertheless, in his opinion,

[1] *Mathematical Psychics*, p. 78.

satisfy the conditions required for the validity of Statistical Theory, whatever these might be. I expect that this is true. It is a reasonable attitude for one who is mainly interested in statistics to take up. But it implied in Edgeworth an unwillingness to revise or take up again the more speculative studies of his youth. The same thing was true of his work in Economics. He was disinclined, in company with most other economists of the Classical School, to reconsider how far the initial assumptions of the Marginal Theory stand or fall with the Utilitarian Ethics and the Utilitarian Psychology, out of which they sprang and which were sincerely accepted, in a way no one accepts them now, by the founders of the subject. Mill, Jevons, the Marshall of the 'seventies and the Edgeworth [1] of the late 'seventies and the early 'eighties *believed* the Utilitarian Psychology and laid the foundations of the subject in this belief. The later Marshall and the later Edgeworth and many of the younger generation have not fully believed; but we still trust the superstructure without exploring too thoroughly the soundness of the original foundations.

It is not necessary that I should say much here with regard to Edgeworth's statistical work, since this will doubtless be treated in the *Statistical Journal*. From 1885 onwards his more general articles, especially his "Methods of Statistics" in the Jubilee Volume of the *Statistical Journal*, 1885, and his "Application of the Calculus of Probabilities to Statistics" in the *Bulletin of the International Statistical Institute*, 1910, were of great value in keeping English students in touch with the work of the German School founded by Lexis and in sponsoring, criticising and applauding from their first beginnings the work of the English statisticians on Correlation. His constructive work, particularly of late years, has centred in highly elaborate and difficult discussions of his own "Generalised Law of Error." Edgeworth's particular affection for the mode of treatment which he here adopted was partly due, I think, to its requiring the minimum of assumption, so that he was able to obtain his results on more generalised hypotheses than will yield results in the case of other statistical formulæ. In this way he could compensate, as it were, his bad conscience about the logical, as distinct from the pragmatic, grounds of current statistical theory.

At about the same time as his first papers on Probability

[1] In his early adherence to Utilitarianism Edgeworth reacted back again from his father's reaction against Maria Edgeworth's philosophy in these matters. Mozley (*op. cit.*) records of Frank Edgeworth that "he showed an early and strong revolt against the hollowness, callousness, and deadness of utilitarianism."

and the Law of Error, namely in 1883, in his thirty-eighth year, Edgeworth embarked on the fifth topic, which was to complete the range of the main work of his life, that is to say, Index Numbers, or the application of mathematical method to the measurement of economic value.[1] These five applications of Mathematical Psychics—to the measurement of Utility or ethical value, to the algebraic or diagrammatic determination of economic equilibriums, to the measurement of Belief or Probability, to the measurement of Evidence or Statistics, and to the measurement of economic value or Index Numbers—constitute, with their extensions and ramifications and illustrations, Edgeworth's life work. If he had been of the kind that produce Treatises, he would doubtless have published, some time between 1900 and 1914, a large volume in five books entitled *Mathematical Psychics*. But this was not to be. He followed up his two monographs of 1877 and 1881 with a third entitled *Metretike, or the Method of Measuring Probability and Utility*, in 1887. It is a disappointing volume and not much worth reading (a judgment with which I know that Edgeworth himself concurred). After this, so far from rising from the Monograph to the Treatise, moving to the opposite extreme from Marshall's, he sank from the Monograph to the paper, essay, article or transaction. For the last forty years a long stream of splinters has split off from his bright mind to illumine (and to obscure) the pages of the *Statistical* and *Economic Journals*.

Once when I asked him why he had never ventured on a Treatise, he answered, with his characteristic smile and chuckle, that large-scale enterprise, such as Treatises and marriage, had never appealed to him. It may be that he deemed them industries subject to diminishing return, or that they lay outside his powers or the limits he set to his local universe. Such explanations are more than enough and Occam's razor should forbid me to mention another. But there may have been a contributory motive.

Mathematical Psychics has not, as a science or study, fulfilled its early promise. In the 'seventies and 'eighties of the last century it was reasonable, I think, to suppose that it held great prospects. When the young Edgeworth chose it, he may have looked to find secrets as wonderful as those which the physicists have found since those days. But, as I remarked in writing

[1] I refer to Edgeworth's first contribution to the *Statistical Journal* (1883), "The Method of ascertaining a Change in the Value of Gold." This was followed by the well-known memoranda presented to the British Association in 1887, 1888 and 1889, and a long series of articles thereafter, several of which are reprinted in his *Collected Papers*, Vol. I.

about Alfred Marshall's gradual change of attitude towards mathematico-economics (JOURNAL, vol. xxxiv, p. 332), this has not happened, but quite the opposite. The atomic hypothesis, which has worked so splendidly in Physics, breaks down in Psychics. We are faced at every turn with the problems of Organic Unity, of Discrete-ness, of Discontinuity—the whole is not equal to the sum of the parts, comparisons of quantity fail us, small changes produce large effects, the assumptions of a uniform and homogeneous continuum are not satisfied. Thus the results of Mathematical Psychics turn out to be derivative, not fundamental, indexes, not measurements, first approximations at the best; and fallible indexes, dubious approximations at that, with much doubt added as to what, if anything, they are indexes or approximations of. No one was more conscious of all this than Edgeworth. All his intellectual life through he felt his foundations slipping away from under him. What wonder that with these hesitations added to his cautious, critical, sceptical, diffident nature the erection of a large and heavy superstructure did not appeal to him. Edgeworth knew that he was skating on thin ice; and as life went on his love of skating and his distrust of the ice increased, by a malicious fate, *pari passu*. He is like one who seeks to avert the evil eye by looking sideways, to escape the censure of fate by euphemism, calling the treacherous sea Euxine and the unfriendly guardians of Truth the kindly ones. Edgeworth seldom looked the reader or interlocutor straight in the face; he is allusive, obscure and devious as one who would slip by unnoticed, hurrying on if stopped by another traveller.

After the appearance of *Metretike* in 1887, Edgeworth ventured on no separate publication, apart from four lectures delivered during the war, which were printed in pamphlet form,[1] until last year the Royal Economic Society published under his own editorship his *Collected Economic Papers* in three substantial volumes. These volumes preserve in accessible form the whole of Edgeworth's contributions to the subject of Economics, which he himself wished to see preserved, apart from some portions of *Mathematical Psychics* alluded to above. It is much to be wished that his more important contributions to the Theories of Probability and of Statistics could be issued in similar form.

The publication of his Economic Papers was a great satisfaction to Edgeworth. His modest and self-effacing ways

[1] *On the Relations of Political Economy to War, The Cost of War, Currency and Finance in Time of War,* and *A Levy on Capital.* None of these is amongst his best work.

would always have prevented him from undertaking such an enterprise on his own initiative. But as soon as others were prepared to take the responsibility, the business of selection and preparation for the press was a congenial task. Moreover, the publication proved a great success in every way. The sales were substantial for a work of this class and have been sufficient to relieve the Royal Economic Society of any financial liability. The work itself has been reviewed in learned journals throughout the world with expressions of esteem such as the author's previous modes of publication had cut him off from hearing. I think that Edgeworth was genuinely surprised at the extent of his international reputation, and it gave him as much pleasure as surprise.

In spite of his constant flow of learned papers, a great part of Edgeworth's time for the last thirty-five years has been occupied with the work of this JOURNAL. His practical gifts as an Editor were quite other than might have been expected from his reputation as an unpractical, unbusinesslike person, remote from affairs, living on abstractions in the clouds, illuminating the obscure by the more obscure. As one who has been associated with him in the conduct of the JOURNAL for fifteen years, I can report that this picture was the opposite of the truth. He was punctual, businesslike and dependable in the conduct of all routine matters. He was quite incapable of detecting misprints in what he wrote himself,[1] but had an exceptionally sharp eye for other people's. He had an unfailing instinct for good " copy " (except, again, in what he wrote himself), exercised his editorial powers with great strictness to secure brevity from the contributors,[2] and invariably cast his influence in favour of matter having topical interest and against tedious expositions of methodology and the like (which often, in his opinion, rendered German Journals unuseful). I have often found myself in the position of defending the heavier articles against his strictures. He established and was always anxious to maintain the international sympathies and affiliations of the JOURNAL. I am sure that there was no economist in England better read than he in foreign literature. He added to this what must have been the widest personal acquaintance in the world with economists of all nations. Edgeworth was the most hospitable of men, and there can have been very few foreign economists, whether of

[1] The difficulty of his articles was often enhanced by the fact that they were packed with misprints, especially in the symbolic parts.

[2] He invented and attached much importance to what he termed a law of diminishing returns in the remuneration of articles, by which the rate falls after ten pages have been exceeded and sinks to zero after twenty pages.

established reputation or not, who have visited London during the past thirty years and have not been entertained by Edgeworth. He had a strong feeling for the solidarity of economic science throughout the world and sought to encourage talent wherever he found it, and to extend courtesies in the most exquisite traditions of Ireland and Spain. His tolerance was all-embracing, and he combined a respect for established reputation which might have been thought excessive if there had not been a flavour of mockery in it, with a natural inclination to encourage the youthful and the unknown. All his eccentricity and artistic strangeness found its outlet in his own writings. All his practical good sense and daily shrewdness was devoted to the ECONOMIC JOURNAL.

On anyone who knew Edgeworth he must have made a strong individual impression as a person. But it is scarcely possible to portray him to those who did not. He was kind, affectionate, modest, self-depreciatory, humorous, with a sharp and candid eye for human nature; he was also reserved, angular, complicated, proud and touchy, elaborately polite, courteous to the point of artificiality, absolutely unbending and unyielding in himself to the pressure of the outside world. Marshall, remembering his mixed parentage, used to say: "Francis is a charming fellow, but you must be careful with Ysidro."

His health and vigour of body were exceptional. He was still a climber in the mountains, bather in the cold waters of the morning at Parson's Pleasure, unwearying pedestrian in the meadows of Oxfordshire, after he had passed his seventieth year. He was always at work, reading, correcting proofs, "verifying references" (a vain pursuit upon which his ostensible reverence for authority and disinclination to say anything definite on his own responsibility led him to waste an abundance of time), working out on odd bits of paper long arithmetical examples of abstruse theorems which he loved to do (just as Maria Edgeworth has recorded of his grandfather), writing letters, building up his lofty constructions with beautiful bricks but too little mortar and no clear architectural design. Towards the end of his life it was not easy to carry through with him a consecutive argument *vivâ voce*—he had a certain dissatisfied restlessness of body and attention which increased with age and was not good to see. But on paper his intellectual powers even after his eightieth year were entirely unabated; and he died, as he would have wished, in harness.

Edgeworth was never married; but it was not for want of

susceptibility. His difficult nature, not his conception of life, cut him off from a full intimacy in any direction. He did not have as much happiness as he might have had. But in many ways a bachelor life suited his character. He liked to have the fewest possible material cares; he did not want to be loaded with any sort of domestic responsibility; and he was content without private comfort. No one lived more continuously than he in Common Rooms, Libraries and Clubs, or depended more completely upon such adjuncts for every amenity. He had but few possessions—scarcely any furniture or crockery, not even books (he preferred a public library near at hand), no proper notepaper of his own or stationery or stamps. Red tape and gum are the only material objects with the private ownership of which I associate him. But he was particular about his appearance, and was well dressed in his own style. There was more of Spain than of Edgeworth in his looks. With broad forehead, long nose, olive colouring, trimly pointed beard and strong hands, his aspect was distinguished, but a little belied by his air of dwelling *uncomfortably* in his clothes or in his body. He lived at Oxford in spartanic rooms at All Souls; in London lodgings at 5 Mount Vernon, two small bare rooms, pitched high on the cliff of Hampstead with a wide view over the metropolitan plain, which he had taken on a weekly tenancy more than fifty years ago and had occupied ever since; in Ireland, where he would spend some weeks of the summer, at the St. George Club, Kingstown. For meals the Buttery and Hall of All Souls, the Athenæum, the Savile or the Albemarle; for books the libraries of these places, of the British Museum, of Trinity College, Dublin, of the Royal Statistical Society.

It is narrated that in his boyhood at Edgeworthstown he would read Homer seated aloft in a heron's nest. So, as it were, he dwelt always, not too much concerned with the earth.

J. M. Keynes

JAMES MAVOR (1854–1925)

BOTH Britain and Canada are the poorer for the death of Mavor, which happened at his brother's house in Glasgow on 31st October, 1925, two years after his retirement from the Chair of Political Economy, at first conjoined with Constitutional History, at Toronto. He had held that Chair (in succession to Professor, now Sir William Ashley) since 1892, and Canada may be regarded as the centre of his activities for the best part of his life. They were far from being confined to academical duties. He regarded himself as the servant of all Canada, not of the University only; and the University, rightly appreciating the man, allowed him some latitude. He was in touch not only with bankers like Edmund Walker and political philosophers like Goldwin Smith, but with painters and musicians, social reformers, agitators, school teachers, book collectors, mountaineers, chess players. Knowing that Canada had more need of all these than of legislation, he turned his apparently extraneous pursuits to the common gain. He loved travelling. One of his last trips was to China, where, amongst other things, he studied the school system. But his most famous journeys were to Russia. When Tolstoi in 1897 took up the cause of the Doukhobors, Mavor sought him out, and worked with that powerful ally to arrange with the Czar's Government for their emigration to Canada. From 1899 onwards, about 12,000 of these "Quaker-Communists" have come to the North-West, and under Peter Veregin (lately dead, 1924) they lived an industrious, inoffensive life, though showing no ability or enterprise and no desire to mix with the other inhabitants. Mavor did a similar service to a settlement of Finlanders. One of his last public acts was a successful protest against an attempt to dislodge certain Doukhobors from their lands in favour of "returned men." It was a generous sympathy; the cause was not popular. Mavor's "underground" help of Russian refugees in this country was well known to all his friends. In Canada he undertook a great History of Reform Movements in Russia, brought to completion just before the Revolution of 1917 and the disappearance of the Czardom. It was sometimes remarked that in personal appearance he was not unlike a Russian himself.

His second public appearance (if the first was for the Doukhobors) was made when he drew up in 1904 a Report for the British Board of Trade (published 1905) on the North-West of Canada, especially with regard to the production of wheat.

The Provinces of the Dominion, like all other Provinces, were inclined to magnify the resources of their territory; and their periods were pruned remorselessly by our courageous friend, whose conclusions after all were substantially those of the central government. The Report is a model of statistical thoroughness, well equipped with maps and figures and authorities, among which authorities, however, the provincial do not play a part. The whole represented, he tells us, six months of work every year for eight years. The conclusions are usually accepted as true, for the conditions of the time. The sketch of Immigration into Canada from 1870 onwards is of great interest, especially in regard to the men he knew best, the Doukhobors (12 to 21).

The report, being couched in critical language, aroused "passionate hostility," he tells us in his fascinating autobiography, *My Windows on the Street of the World* (ii. 198). It is, therefore, interesting to read the opinion expressed by the late Professor Marshall, with reference to a conversation with him during the meeting of the British Association at Cambridge in 1904: "After dinner, though there were several people to whom I particularly wished to talk, I spent the whole time—as it was my only chance—in getting from Mavor, who knew much more about it than anyone else in the world, a detailed (illustrated) account of the wheat resources of the Canadian West" (*Memorials of Alfred Marshall*, p. 440).

Though the largest, it was not his only Inquiry. He had reported in 1899 to the Dominion Government on Immigration, and to the Ontario Government on Workmen's Compensation. He had been familiar with such work on this side of the Atlantic. He had reported, for example, on Labour Colonies (1893, Board of Trade), including the Salvation Army's in Essex, on which he surprised the public by a favourable verdict. His first professorial post (of Political Economy and Statistics) at St. Mungo's College, Glasgow, 1888, gave him opportunities for studying British commercial and social questions at close quarters; and the fruits appeared in a pamphlet still historically interesting on *The Scottish Railway Strike of* 1891 (Edinburgh, 1891), and another on *Railway Rates*, 1894. He knew Glasgow well, having passed through the High School, and the University, but his Ph.D. came from Toronto.

It is sometimes said that Mavor neglected the work of his Chair for activities outside. But he really contrived to do both, in a way of his own that was probably best for all con-

cerned. There is ample testimony to his power of stirring up interest in his subject, and to his readiness to help his students. He had no lack of devotion to the cause of economic learning and teaching, and he fired up when a colleague spoke of the old economists as spent forces. He was at one time an active Bimetallist. His text books (*Economic History and Theory* (with diagrams) 1889, and *Applied Economics*, 1914), show him well abreast of the new learning and not regardless of the old. When in 1913 the Toronto Political Science Club grew into the Canadian Political Science Association it had Professor Shortt, Canada's Senior Economist, as President, Professor Mavor as first Vice-President, with Sydney Fisher and Mr. Herbert Ames as his colleagues, and Mr. O. D. Skelton as Secretary. This was largely an Economic Society, and Mavor gave energetic support to it. He was a contributor to Palgrave's *Dictionary of Political Economy* and also to this JOURNAL, especially the first number of the first volume, where he gives an account of the Scottish Railway Strike (March 1891, pp. 204–17). He had already written a pamphlet on *The Scottish Railway Strike*, 1891, *a History and Criticism* (published, February 1891, Brown, Edinburgh), and it was reviewed in our first volume by Mr. L. L. Price (1891, p. 596). In 1917 his pamphlet on *Government Telephones, the Experience of Manitoba* (published 1916) was reviewed by Mr. Henry Higgs (pp. 388–90), who thought the argument against Government ownership was inconclusive, but the writer had presented the case excellently, and had certainly shown blots in administration.

Mavor's genial autobiography, *From My Windows on the Street of the World* appeared in 1923, and may be taken as his last message to us. He will be missed by a large circle of companions here. He left a widow, a daughter, and two sons, one of whom, Major Mavor, served with distinction in the Great War.

JAMES BONAR

The following additional traits are communicated by one who was for some years a colleague of Mavor:

The spacious old-fashioned house in the University grounds where Mavor lived was a little unkempt like its tenant, but, like him, unfailing in accessibility and hospitality. At home in his library his personality found its fullest expression. He was an insatiable collector of economic material—not merely books—and the long room in which he housed his collection was rich, not so much in rarities, though these were many, as in first-hand

sources for American and Canadian economic history. Probably it was the most important private economic library on the continent with the exception of that of Professor Seligman. This room was the focus of Canadian economic discussion and information. It was the resort of students and investigators, delving, exploring, collating: the workshop where a succession of Russian secretaries assisted in translating and preparing the enormous range of material utilised for the *Economic History of Russia*: the meeting-ground to which every distinguished visitor passing through Toronto was introduced. The visitor might be an actor, a man of letters, an explorer, an artist, a European statesman, a Doukhobor peasant leader. Whoever he was he gained invigoration and help from Mavor's comprehensive knowledge and incisive judgments. Mavor, indeed, without being eccentric, was a personality, the more prominent because the community in which he lived was somewhat over-precise and humdrum in its conventions.

The awe which he inspired in his students quickly melted at his fireside. Then the shrewd and twinkling eyes, the comfortable cigar puffing over the chess-board, corrected the severity of the sage-like beard; if there was often a hint of intellectual arrogance in his bearing there was also simplicity and kindliness. He loved children and was beloved in turn.

Mavor was a great talker and raconteur. His scope was exceptional, not only geographically (he had a thorough knowledge of Russia and the Far East) but culturally. His power of rapid assimilation, his knowledge of art and the theatre, his fondness for music, his unflagging mental vitality at any hour of day or night—this many-sided capacity made him stimulating company. Though he was often dogmatic and occasionally provocative his genuine warmth of heart supplied a bond of affection to unite his widely scattered friendships.

Mavor believed in the aristocracy of intellect. He did not suffer fools gladly, and had no patience with a democratic equalitarianism which seemed to deny the rights of the better man. Civilisation implied an under-dog. "There are," he said, "only two real civilisations, Russia and China." By contrast he was apt to underrate the cultural possibilities of America.

G. I. H. Lloyd

Charles H. Oldham

We regret to announce the death on 20th February of Professor Charles H. Oldham, Professor of Economics at University College, Dublin, and first Professor of Commerce in Ireland. Professor Oldham was an occasional contributor to this Journal and his latest contribution is printed above.

Current Topics

The following have been elected to membership of the Royal Economic Society :—

Arnold-Craft, H. P.
Aughton, S.
Avery, W. P.
Bailey, R. R.
Banerjee, S. C.
Banks, W. H.
Barlow, W.
Bass, J.
Basu, G.
Bell, Miss H. M.
Bhatty, E. C.
Bohlman, Prof. H. W.
Brooks, A. B.
Brown, W. A. Jr.
Burn, D. L.
Caddick, A. F.
Calkins, J. U.
Carroll, Prof. J. F.
Chassee, L. J.
Clark, L. D.
Clogg, J. A. E.
Cockell, E. S.
Cole, L. J.
Collver, C.
Costa, J. C. C. da.
Cottier, W. L.
Cover, Prof. J. H.
Crowther, S.
Cummins, E. E.
Davies, E. H.
Davies, H. H.
Deary, R. P.
Devereux, H. E.
Dewsnup, Prof. E. R.
Dickinson, Prof. Z. C.
Dolling, H. W.
Donaldson, Prof. J.
Evans, T. E.
Ford, P.
Fraser, W.
Garrett, C. P.
Gayer, A. D.
George, C. F.
Hall, J.
Hargreaves, K.
Harris, G.
Harkness, D. A. E.
Hart, R. A.
Heimann, Prof. E.
Henn, K.
Henwood, F. C.
Hindley, R.
Hinton, R. C.
Hobson, A.
Hogben, J. W.
Holden, A. S.
Jackson, J. H. H.
Johansson, G.
Johnson, W. H.
Jones, Prof. Eliot.
Jones, E. G.
Jones, H. L.
Jones, W. E.
Kinder, G. A.
Kumar, R. K.
Laslett, A. J. W.
Leake, H. M.
Lehta, M. F.
Lloyd, A. D.
Loveridge, A. J.
MacFadden, F. A. R.
Mallik, J. M.
Marfatia, K. K. D.
Mathur, B. L.
Meek, A.
Même, E. N. Le.
Moore, W. R., M.C.
Morgans, D.
Morrison, C.
Morton, J.
Natesau, L. A.
Ohsugi, Y.
Ogilvie, Prof. F. W.
Opie, R.
Osmers, Rev. E. A.
Pasha, Ali Fuad.
Patterson, F. H.
Peacock, D. H.
Pennoyer, Charles H.

Pitman, S. L. E.
Price, E. L., O.B.E.
Puri, D. Nath.
Rahman, F.
Rao, T. Ramachandra.
Rive, A.
Rolfe, C. B.
Rymill, R. R.
Saltren-Willett, Lieut.-Comm. G. A., R.N.
Schaffer, J. N.
Sheat, W. A.
Singh, N. Nihal.
Sirkin, D.
Smith, J. S.
Sogame, M.
Soloveytelick, G. M.
Squires, J. W. L.
Steen, D. H.
Taber, T. H.
Taimuri, Mirza H. R.
Tandon, Prof. L. C.
Tandon, P. L.
Thomas, S. A.
Thomson, J. G. O.
Tongue, F. A.
Turvey, F. J.
Waltersdorf, M. C.
Warden, W. D.
Warrington, W. E.
Whetham, W. C. Dampier, F.R.S.
Williams, O.
Williams, R. E.
Wilmot, H. W.
Winslow, Miss Emma A.
Wyllie, J.
Xenakis, S. G.
Yeates, R. B.
Yeomans, J. T.
Young, F. H.

The following have compounded for life membership :—

Bhimpure, Prof. B. L. V.
Cave, L. W.
Dickinson, Prof. Zenas Clark.
Dunlop, W. R.
Leake, Hugh Martin.
Liddington, H. J.
MacFadden, Frederick A. Roy.
Mathur, Bhanner Lall.
Ohlin, Dr. B.
Ohsugi, Y.
Rymill, Robert Riddoch.
Sogame, M.
Tait, D. C.
Thomson, James George Orr.
Xenakis, S. G.

The following have been admitted to library membership :—University Library, Oslo; Central Library of the Supreme Council of National Economy, Mockba, Russia; Fisher Library, University of Sydney; Institut für Sozial-und Staatswissenschaften, Heidelberg; Statistical Department, White Motor Company, Cleveland, Ohio.

We record with regret the deaths of the following Fellows of the Society :—

Boissevain, G. M.	(elected 1891).
Lord Carmichael	(,, 1891).
Fells, J. M.	(,, 1890).
Hiern, W. P.	(,, 1890).

MR. F. W. OGILVIE, Fellow and Lecturer in Economics at Trinity College, Oxford since 1920, has been appointed to succeed

Professor J. Shield Nicholson in the chair of Commercial and Political Economy in Edinburgh University. Mr. Ogilvie was born in 1893 and was educated at Clifton College and at Balliol College, Oxford, where he distinguished himself in classics. After the war he returned to Oxford and graduated under war statutes without sitting for the final examination.

THE Government of Ireland have appointed a banking commission "to consider and report to the Minister for Finance what, if any, changes in the law relating to banking and note issue are necessary or desirable, regard being had to the altered circumstances arising from the establishment of Saorstat Eireann." The Commission includes Mr. Henry Parker Willis, of New York, who will act as Chairman, and Mr. Lionel Smith-Gordon, Director of the National Land Bank.

OUR Japanese Correspondent writes: –

The coming session of the Diet is anticipated with keen interest coupled with a fear of dissolution, on account of the presentation of big estimates of nearly 1,600,000,000 yen and a thoroughgoing tax reform Bill. The essential features of the Budget for 1926–27 are:

1. Debt issue is limited to 150,000,000 yen, which will not be publicly issued.

2. Expenditures are boldly cut down and sums are appropriated only for new enterprises of urgent necessity, such as
   (*a*) increase of subsidy for salaries of public school teachers.
   (*b*) Advancement of trade, emigration and shipping.
   (*c*) Encouragement of small landowners, health insurance, and other social reforms.
   (*d*) Opening of resources and increase of rice cultivation in Hokkaido and Korea.
   (*e*) Consolidation of loans made to the Chinese Government.

3. Besides due revision of customs, reforms in income, land, profession, succession, saké, and card taxes are contemplated, with the abolition of taxes on passengers, sauce, cotton fabrics, medicines and the new imposition of taxes on interest of capital and non-alcoholic drinks.

Labour movements are assuming a more moderate attitude, the extreme views being looked upon with less favour, and the General Federation of Labour in Japan is inclining fast towards parliamentary methods, and is firmly decided to fight against

communism and anarchism. Although strongly opposed by capitalists, the Cabinet seems to be determined to bring out a Bill to recognise the trade unions in the coming session of the Diet.

Trade in 1925 seems likely to show 2,303,000,000 yen for export, and 2,567,000,000 yen for import, leaving an excess of import of 264,000,000 yen. Of the exports, silk takes the lead, being followed by cotton goods.

Among the imports, raw-cotton, rice and wool are the chief items. With the gradual decrease in the excess of imports the exchange rate for yen is becoming more favourable. Encouraged by this turn of things, those who are in favour of lifting the ban on gold exportation are urging the Government to follow the steps taken by England, although the prospect of their success looks rather remote at present.

RECENT PERIODICALS AND NEW BOOKS

Economica.

NOVEMBER, 1925. *Geography and the University.* PROF. L. RODWELL JONES. *Intelligence, Sentiment and Human Progress.* PROF. A. WOLF. *Hindrances to Output.* DR. CHARLES S. MYERS. The facts or beliefs which prompt "ca' canny," the restriction of output by employers, the cutting of piece rates, monotony of work, are among the hindrances which are investigated by the National Institute of Industrial Psychology. *The Records of a Pin Manufactory,* 1814–21. T. S. ASHTON. Interesting details respecting technical processes and human—in particular children's—labour. *The Labour Bank Movement in the United States.* R. D. KILBORNE.

The Nineteenth Century.

NOVEMBER, 1925. *English Poor Relief Methods through Foreign Eyes.* EDITH SELLERS. A foreign expert criticised the expense of an education suited to wearers of "Black coats," the want of separation between the workless and the worthy, the "all on a par enactment" must go, and with it the "destitution-test enactment."

DECEMBER, 1925. *The Gold Standard.* ARTHUR KITSON.

JANUARY, 1926. *British Industries and the Indian Market.* SIR REGINALD CRADDOCK. *Industries Rights and Wrongs.* SIR ERNEST PETTER. *Slavery, Forced Labour and the League.* W. A. APPLETON. *Corn-growing in England.* SIR HENRY REW.

Contemporary Review.

DECEMBER, 1925. *Industry and Economics.* SIR HUGH BELL. *Empire Trade and Empire Settlement.* PROF. RAMSAY MUIR.

FEBRUARY, 1926. *Industry and Economics.* Part II. SIR HUGH BELL. *The Economic Conference.* DR. WILLIAM MARTIN. *Subsidies for Houses.* ARTHUR GREENWOOD.

Irish Trade Journal.

DECEMBER, 1925, and JANUARY, 1926. *The Shannon Scheme.* The economic success of the scheme does not depend on the establishment of new industries; though, of course, it will be greater if that desired result follows. The preparatory operations are stupendous. About 1,000,000 cubic metres of rock and 6,000,000 of earth will have to be excavated and transported; 20,000 tons of machinery are to be set up within three and a half years.

Economic Society of South Africa.

Proceedings of Conference at Johannesburg, 1925. Professor Lehfeldt in a brief Presidential address described the object of the Conference to be the scientific treatment of economic problems. The practical applications of economics, just like those of chemistry, require a body of scientific knowledge only to be created by a pure love of truth. The President exemplified his precepts in a Paper on Railway Rate Policy in South Africa. Other papers were on the limitations of State enterprise, on the marketing of agricultural products, on taxation, etc., mostly with reference to South African problems.

The Economic Record (Melbourne).

Vol. I., No. I. The inaugural number of this Journal, the organ of the Economic Society of Australia and New Zealand, is promising. The origin of the Society in 1925 is described in one of the instructive Notes. An interesting feature of the Reviews is the permission of a rejoinder extending to four or five pages. There are several notable articles. *Australian Population.* C. H. WICKENS. In the period 1860–1924 the population increased by 4,730,000, of which 76 per cent. was due to natural increase, 24 per cent. to net immigration. In the period 1911–21 Australia's average rate of increase was 20 per 1000 per annum, while the rate for the United States of America was 14 per 1000, for Japan 7 per 1000, for Sweden 7, for England and Wales 4, for Scotland 3, for Ireland 2. The drift to the cities in Australia has not produced any evidence of deterioration in the progressive longevity of the population. *Australian Banking and Exchange.* D. B. COPLAND. "Variations of cash reserves follow and do not precede variations in credit"; in accordance with a dictum of Mr. J. M. Keynes. Other features of the Australian system are presented under the headings "Gold Exchange Standard" and "Sterling Exchange Standard." *The Australian Tariff and the Standard of Living.* J. BRIGDEN. The Tasmanian Professor ingeniously argues that Australian Protection, by diverting industry to manufactures, has prevented a pressure upon the (practically limited) land, which would have resulted in lowering the standard of living. The argument for Free Trade depends on local circumstances. Protection has been as beneficial to Australia as Free Trade to Britain. *Business Conditions in New Zealand.* A. H. TOCKER. Against the received plan of varying wages with the cost of living, there is considered variation of wages in accordance with productivity. *Group Settlements of Migrants in Western Australia.* E. SHANN.

International Labour Review (Geneva).

OCTOBER, 1925. *The Compulsory Adjustment of Industrial Disputes in Germany.* DR. F. SITZLER. *International Comparisons of Real Wages.* DR. FELIX KIEL. *Labour Recruiting in Japan.* SHANZO YOSHISAKA. *Vocational Education in Soviet Russia.* B. A. NIKOLSKY. "The too rapid extension of the schools has led to a certain hypertrophy of the whole system."

DECEMBER. *Recent Development in Industrial Relations in the United States.* HERBERT FEIS. *Minimum Wage Legislation in Norway.*

F. Voss. *The Results of the Eight-hour Day.* PROF. E. MILHAUD. A comprehensive survey shows that the post-war reduction in the working day has been a factor in technical progress.

JANUARY, 1926. *Social Aspects of Land Reform in Esthonia.* M. MARTNA. The abolition of the old feudal tenures has restored the mainspring of activity. *Results of Compulsory Labour Service in Bulgaria.* By the Act of 1921 able-bodied Bulgarians are required to give a certain quantity of labour to the State: eight months maximum for men between twenty and forty years, four months for women between sixteen and thirty years. The system has conduced to the construction of roads and railways.

Quarterly Journal of Economics (Cambridge, Mass.).

NOVEMBER, 1925. *American Corporations and their Executives.* F. W. TAUSSIG and W. S. BARKER. A questionnaire answered by some four hundred concerns elicited information as to the proportion of total earnings and of dividends to invested capital and other features of American Corporations. The American managers receive stipulated wages, all the profits going to the stockholders; a type of executive which contrasts with the European Director, who commonly receives amounts varying with the earnings of the business. *Non-competing Groups.* H. J. DAVENPORT. There is attached the assumption "both explicit and implicit with Marshall and Taussig," and "typical of classical doctrine," "that, in some large and general way, the wage and interest outlays of the entrepreneur find their determination and their adequate explanation in the efforts of the wage receivers and the waitings of the interest collectors." *German Industrial Organisation since the World War.* ROBERT LIEFMANN. *Chapters on Machinery and Labour.* III. *Displacement of Skill.* G. E. BARNETT. (Continued from August.) *Professor Knight on Psychology.* M. A. COPELAND. The outlook of economics as a science is not so dark as Prof. Knight would make it. (See *Quarterly Journal,* May 1925, and ECONOMIC REVIEW, June 1925.) *Recent Books on Railroads.* W. Z. RIPLEY.

American Economic Review (Cambridge, Mass.).

DECEMBER, 1925. *What has the Federal Trade Commission Accomplished?* W. H. S. STEVENS. *Computation of Goodwill Profits.* C. J. FOREMAN. *Legal Institutions and Economics.* K. N. LLEWELLYN. *Interest Rate and Business Cycle.* CARL SNYDER. The direct effect of interest rates upon the course of business seems less than has been supposed. The more important changes in business take place before the change of interest could be effective. *War Debts and International Trade Theory.* H. C. MOULTON. A defence and development of former writings; maintaining against accepted doctrines that exports cannot be increased independently of imports, which may be required for raw materials; that "any attempt to force a vast reorganisation of German industry and trade would result in less rather than more reparation payments"; that the settlement of these obligations may well involve difficulties differing in magnitude and character from the adjustment of ordinary commercial borrowings. *The Utility Concept in Value Theory.* JACOB VINER. The subjective

type of measurement can at most discover the relation of more or less: it belongs to the wide sphere in which only imperfect instruments are available for the guidance of conduct. Those who insist that welfare economics should confine itself to measurement in terms of prices have succumbed to the "too prevalent methodological fanaticism which prefers the accurate but superficial to the approximate but fundamental." Measurement of welfare by prices encounters many objections; among which the writer places high the fact that price measures desire rather than enjoyment. He quotes, without accepting, Marshall's treatment of this difficulty and Pareto's acquiescence with respect to "actions qui se répètent." *Typothetæ and the Eight-hour Day.* LEONA M. POWELL. A chapter in the history of industrial war.

Journal of Political Economy (Chicago).

OCTOBER, 1925. *The Statistical Law of Demand.* I. HENRY SCHULTZ. Difficulties encountered in ascertaining the elasticity of demand and the methods of overcoming them are considered. *Railroad Valuation and Rate Regulation.* HARRY C. BROWN. *The Retirement of National Bank Notes.* W. O. WEYFORTH. *Marginal Productivity.* F. H. KNIGHT and J. M. CLARK. An indictment of Prof. Clark's statement that the sum of the contributions of all the factors of production is the total product (in his *Overhead Costs*—reviewed in the ECONOMIC JOURNAL, 1925), with a rejoinder by Prof. Clark; followed by a rebutter and a surrebutter.

DECEMBER. *The Statistical Law of Demand,* II. The methods presented in the previous article are applied to the construction of a demand-curve for sugar. "Under normal conditions an increase of 1 per cent. in the price of sugar is associated with a decrease in consumption of only 0·5 per cent."

Annals of the American Academy (Philadelphia).

NOVEMBER, 1925. *The Far East* is the subject of numerous articles in this issue. The "Gentlemen's agreement" with Japan, 1907, worked well and was faithfully observed by the Japanese. Their exclusion by the legislation of 1824 is stigmatised as "ungentlemanly, unnecessary and essentially unethical conduct." There are articles on living conditions in Japan and in China, and other interesting topics.

Journal des Économistes (Paris).

NOVEMBER, 1925. *Rapports de la Banque de France et de l'État.* YVES-GUYOT. *La discordance des Changes inverses.* A. DE PIETRO-TONELLI.

DECEMBER. *Inquiétudes de l'homme moyen.* YVES-GUYOT. *Le Maroc du point de Vue économique.* COL. GODCHOT.

JANUARY, 1926. *L'encerclement bolchevik en Asie et en Afrique.* YVES-GUYOT. *Un plaidoyer en faveur de la liberté.* HAROLD COX. A vigorous protest against State interference in Great Britain.

Revue d'Économie Politique (Paris).

SEPTEMBER-OCTOBER, 1925. *La Banque de Java,* I. W. OUALID. *L'indice monétaire et la théorie de la Monnaie.* F. DIVISIA. Con-

tinued. *La théorie psychologique de la Monnaie.* A. AFTALION (Continued from July–August). Critique de "l'utilité finale" (concluded). Unhappy terminology complicated over-subtle doctrine, imprudent or erroneous generalisations, abstraction which it is difficult or impossible to adapt to the realities of life—such are the reproaches heaped on the doctrine of "final utility."

NOVEMBER-DECEMBER. *L'indice monétaire et la theorie de la monnaie.* F. DIVISIA. Another instalment of an ample treatise dealing with the construction of index-numbers in the light of monetary theory. *Les coalitions industrielles en Suisse. La Banque de Java.* W. OUALID. (Continued and ended.) *Prix Circulation et Change en France de* 1920 *à* 1924. A. AFTALION. The relation between price and amount of circulation is investigated by refined statistical methods; allowance being made for seasonal variation, secular trend, lag and other unobvious incidents.

Jahrbücher für Nationalökonomie und Statistik (Jena).

NOVEMBER–DECEMBER, 1925. The conception and definition of "work" is the subject of the first article; of the second, a recently discovered copy of Adam Müller's *Elementen der Staatskunst* (1809), enriched by his manuscript notes. *Shipbuilding* and *Freights* are the subject of another article.

Archiv für Sozialwissenschaft (Tübingen).

OCTOBER, 1925. *Ueber das Naturale und das Wertmässige in den Wirtschaftlichen Erscheinungen.* PROF. W. OELENSNOFF. *Logik und Wirtschaftwissenschaft.* DR. FELIX KAUFMANN. *Die allgemeinen Theorien von Nationalcharakter.* DR. FRIEDRICH HERTZ.

Zeitschrift für die Gesamte Staatswissenschaft (Tübingen).

1925–6, No. 2. *Die politische Struktur des heutigen Oesterreich.* KARL BROCKHAUSSEN. *Subjectivismus und Objectivismus in der neueren Wirtschafttheorie,* II. ROBERT LIEFMANN.

Weltwirtschaftliches Archiv (Jena).

Work and Service (LEISTUNG) is the subject of the first article; of the second, the relation of "Universalismus" to Economic theory. *Americanismus* is the title of the third article; and America is still dealt with in the fourth article—"The land which has not any Middle Ages" (*ohne Mittelalter*).

Giornale degli Economisti (Rome).

OCTOBER, 1925. *La bilancia alimentare prebellica, bellica e postbellica di alcuni stati di Europa.* G. LINGALI. The amounts in calories produced, imported or consumed in different countries are compared. In the pre-war period (1909–13) the consumption per "mean man" (formed by averaging the requirements of men, women and children) was somewhat above the necessary minimum for England, France and Germany, some below for Italy.

NOVEMBER. *L'opera scientifica di Enrico Barone.* G. DEL VECCHIO. A just appreciation of a great mathematical economist. *Contributo alla teoria dell imposta sul reddito.* PENCLIS REDIADIS. The conceptions of "velocity of production" and velocity of capital

are contributed to the theory of taxation; and it is argued that the taxation should fall not on income, but on the work done by capital; a principle which leads to highly progressive taxation.

DECEMBER. *Equilibrio instabile del movimento delle Società per azioni italiane.* V. PORRI. On some features of Italian companies. *Il salario de la donna rispetto a quello dell'uomo.* G. ZINGALI. Denying the alleged equality of the sexes the writer regards as unjust the equal treatment which is claimed in the name of Justice. *Caratteristiche regionali nei transferimenti di immobili.* MARIO E RICCARDO BACCHI. Comparisons between different parts of Italy with respect to transferences (sales, donations, etc.) of real property. (Mainly the work of the young economist whose promise and untimely death is noticed on an earlier page) (p. 117).

La Riforma Sociale (Turin).

NOVEMBER–DECEMBER, 1925. *L'economia del mare.* E. SELLA. *L'azioni sindicale ed i suoi limiti.* C. ROSSELLI.

Scientia (Milan).

Vol. XXXVIII., No. CLXIII. *The World Problems of Population, II.* G. H. KNIBBS. Estimates of the possible extent of the world population, ranging from 5000 millions to 11,000 millions, depend partly on the advance of physical science, partly on human sentiments. As the point of population-saturation is approached, a country threatened by the overflowing population of another country must resort to defensive measures inconsistent with maximum productivity. Without a consensus of ethical agreement as to restriction of births, it will be impossible to avoid the arbitrament of force. But what should be the terms of such an agreement? Which is to be preferred, the possibility of larger numbers with more modest living or of fewer numbers living in relative opulence?

Metron (Padua).

Vol. V., No. I. *On Periods in Economic Life.* HARALD WESTERGAARD. Referring to Prof. Warren Persons' *Problem of Business Forecasting*, the eminent statistician suggests that both periodic and secular movements may with advantage be treated by simpler methods than is now the fashion. He is not sanguine about distant forecasts. "There seems to be no hope at present of finding periods in agricultural produce," and we have as yet no means of predicting economic curves in industry or commerce. *La fecondità delle aristocrazie.* F. SAVVIGNAN. The ducal houses of Great Britain and Ireland are the subject of this continued inquiry. The "fecundity" of the noble families compares not unfavourably with that of the bourgeois. Yet in half a century—since 1876—four out of thirty-one ducal families have become extinct (without male representatives).

Annali di Economia (Milan).

NOVEMBER, 1925 (Vol. II., No. 1). More than half this issue consists of a series of lectures given by leading Italian economists on the English economists. *The Dawn of Economic Science* is the subject

of the first lecture; in which Prof. Loria reminds us that there were brave men who lived before Agamemnon. In another lecture he contemplates the meridian height, if we may so describe the position of Ricardo. There are separate articles by other leading economists on Adam Smith, Malthus, Jevons, Stuart Mill and Marshall. There follows an ample discussion of the Return to Gold by Prof. A. Cabiati; who breaks a lance with Mr. Keynes in defence of the Baldwin-Churchill Cabinet. *Sulle relazioni fra costo e quantita prodotta.* PIERO SRAFFA. A comprehensive exposition and critical examination of the laws of diminishing and constant and increasing returns; referring instructively to almost all that has been written on the subject, especially to the writings of Marshall and other English economists.

Ekonomisk Tidskrift (Uppsala).

1925, No. 1. *The Bank of Sweden and the Value of Money during and after the War.* DAVID DAVIDSON. In the criticism of the central bank policy too little attention has been given, especially by Cassel, to the fact that the rise in the price level during the war was due not only to monetary phenomena, but also to the abnormal scarcity of goods. Only a rise of the former type should be called inflation. Furthermore, it has been assumed without proof that it is the duty of the central bank to maintain a fixed price level.—Before February 1916 the Bank had no means of preventing a rise in the price level, for gold could be freely imported and exchanged for bank notes or coins. By that time, however, the connection between gold and legal tender in Sweden ceased. The Bank was now at liberty to regulate the price level, but failed to restrict credit. In 1917 the restriction on Swedish imports, imposed by Great Britain, created an extraordinary scarcity of goods. In the last quarter of that year Swedish wholesale prices were 50 per cent. above the American level (272 against 181), but the dollar stood almost 30 per cent. *below* par (271 kronor per 100 dollars). A large part of this rise in the price level was due to the restriction on imports, and cannot be considered as "inflation" in the proper sense of the word. It could not have been prevented by the Bank, except through a policy of deflation.—Towards the end of 1917 the discount rate was raised, but credit was not restricted by other means, in spite of recommendations from a committee of economists and bankers.—After the war the exceptional scarcity of goods ceased, and prices consequently fell (from 369 in January to 307 in October 1919). This cannot be called deflation. It was a fundamental mistake to reduce the discount rate in the beginning of 1919. It was worse still not to raise it in the autumn or, at least, in January 1920, when the dollar rate exceeded par, while Swedish prices were rapidly rising. The inflation in the first half of 1920 could have been avoided. *A "School-Case" in the Tariff Question.* KNUT WICKSELL. Edgeworth's well-known papers in the ECONOMIC JOURNAL (1894) are said to represent the best theory economists have produced about the effects of duties on the terms of exchange in international trade. Wicksell first discusses in detail a similar case and then proceeds to criticise Edgeworth's results. The latter thinks he has proved that the effects of import and export duties are not "symmetrical," and in certain cases of in-

elastic demand even opposite. These conclusions are misleading. They depend upon the peculiar assumptions that seem to have been made, more or less tacitly, that the duty is collected in the form of a certain quantity of the commodity on which it is imposed, and that, furthermore, the quantity of goods collected in this way is redistributed between the inhabitants *without exercising any influence on their individual demand curves*, as compared with a state of free trade. If the duty is collected in money, *i.e.* in the country's export goods, whether it is imposed on imports or exports, then the effects will be the same in either case. Only the relative height of the price levels in the two countries will vary. (The curve OPE, pp. 439 and 432, is not the same as during free trade.) Edgeworth's conclusion that a foreign import duty on a country's export goods can be advantageous to this country is not tenable. Mill's reasoning of a similar nature (*Principles*, Book IV. 6) is criticised.—The existence of several equilibria in international exchange is discussed.—After writing the paper Wicksell found that Edgeworth, in later numbers of the ECONOMIC JOURNAL (*e.g.* 1897, p. 397), has given a different presentation of the relation between duties on imports and exports. The curves are, however, not changed. The supposition now seems to be that the State does not redistribute the income from duties but consumes it; this makes a comparison with a state of free trade impossible.

1925, No. 2-3. *The Explanation of Constant Prices.* ELI F. HECKSCHER. The system of mutual equilibrium that has been built up chiefly by Marshall and Walras is in most cases well suited to an explanation of how prices are determined. Yet there are a great number of more or less "abnormal" cases. If everything depends upon everything else, why—in a world of change —does not, *e.g.*, every price change every day as a result of changes somewhere?—The constancy of certain prices may be merely nominal. This is the case with bread, where the weight is often slightly changed. A more interesting case is the price of credit, *i.e.* the rate of interest; the "quality" of credit, for instance its purchasing power, is changed while the discount rate is fixed.—Cases of real constancy are numerous, chiefly because *demand is kept back not only by price.* Theatre tickets are often taken long in advance. In retail shops certain goods may be sold out; the shopkeeper, though noticing that his store of them will soon be empty, does not as a rule increase the price. Similar things happen with books. In principle this way of keeping back demand, to refuse to sell, when the store is empty, is quite the same as the "ransoning" in Germany and Scandinavia during the war. Often certain buyers resell the goods they have purchased, *e.g.* theatre tickets, and thus a higher equilibrium price is created. —In some cases *varying* quantities of the commodity are offered for other purposes, as *e.g.* when the price of milk is kept fairly constant but the quantity used for the production of cheese varies. Price fixity in one market then leads to stronger price variations in another. The cause of such a policy lies in the advantage of keeping fixed prices in the former.—Very important are cases when demand is smaller than supply, but nevertheless prices are not reduced: *e.g.* street cars, theatres. A part of the capacity is not used. This is very far from the equilibrium principle!

On the labour market similar phenomena appear. *The Price Level as an Independent Factor in the Equation of Exchange.* SVEN BRISMAN. The truth of the statement that the price level is a passive factor in Fisher's equation of exchange is denied. A system of import duties raises prices *directly*; the increase in the quantity of money media is secondary. The Tariff Commission Report is criticised. *The Economic Effects of the Eight-Hours Working Day.* BERTIL OHLIN. This is the theoretical part of a long essay. A reduction of the quantity of labour in this way has different effects from a reduction in the number of workers. Fixed capital is less effectively used; thus, the "round-about methods" of production become less advantageous. The rate of interest gets a tendency to fall (Böhm-Bawerk). The wage per hour rises very little, except in so far as there is an increase in the workers' effectiveness; then wages will rise for that reason too. What happens to the supply of capital? The answer depends on the financial policy with regard to depreciation, as well as on how savings are influenced.—The relative prices of manufactured goods and agricultural goods will probably change to the advantage of the former.—An increase in the number of shifts may be expected; its effects are analysed.—The question of over-time is discussed in a way similar to Pigou's (*The Economics of Welfare*, p. 433).—Finally the influence on the competitive power as compared to countries with a longer working day is analysed. *The Budget during and after the War.* ERIK STRIDSBERG: (With discussion by Wicksell, Heckscher and others.)

1925, No. 5. *Mathematical Economics.* KNUT WICKSELL. Some thoughts around Bowley's *The Mathematical Groundwork of Economics.* The usefulness of mathematics in economic science is stressed and exemplified. It is helpful for an understanding of the impossibility of a residual theory of distribution, such as Walker's. It is necessary for the theory of monopoly prices. —Bowley has neglected Walras, who was the first to give a correct mathematical exposition of exchange under free competition. Yet the book gives a very good account of the most important results in mathematical economics.—Bowley does not make it clear that when the number of commodities is greater than two, indirect exchange is necessary to create equilibrium, *i.e.* some individuals have to acquire certain quantities of certain goods not in order to consume them, but to exchange them for other goods.—Pigou's treatment of marginal supply prices is unnecessarily complicated, and Bowley's exposition is not quite satisfactory (p. 35). Pigou and, *mirabile dictu*, also Edgeworth have misunderstood the marginal supply curves.—Bowley's discussion of the stable equilibrium, the number of producers being great, is criticised.—Some problems of multiple monopolies, when two or more producers exist and try to affect the commodity price, is analysed in detail on the basis of Cournot. Bertrand and Edgeworth have misunderstood the latter, whose investigations are extremely valuable. Bowley's exposition of this question is not accepted as correct; another one is offered in its place. Some other points are criticised, though with the remark that Wicksell's own opinion may very likely be untenable. On the whole, the book is a fine piece of work, and should be studied by all economists.—A rather long list of misprints and minor

mistakes is given. *The Purchasing Power of Money and Protection.* ELI F. HECKSCHER. The Tariff Commission Report is defended against Professor Brisman's criticism. The price level has a special position; it can be effected only *via* some other factor in the equation of exchange. *Rudolf Meerwarth: Nationalökonomie und Statistik.* S. D. WICKSELL. A short review of this book that contains an exposition of some economic and statistical problems. *Municipal Finance.* GUNNAR FANT. (With discussion by Bagge, Wicksell and others.)

International Chronicle for Politics, Economics and Law (*Mezhdunarodnaya Letopis*) (Moscow).

A monthly periodical published in Russian by the Communistic Academy at Moscow, since January 1925.—No. 6-7: *France and the Guaranty Pact,* A. MATHIEZ. A number of articles on the problem of Morocco. The Principal Morocco Treaties of the Twentieth Century. Bibliography on Morocco (289 headings). No. 8–9, 1925: *The Financial Liquidation of the War,* F. DELAISI; *The Universal Crisis in the Coal-mining Industry,* P. LAPINSKY; *Taxation in Germany,* W. KÖHNEN; *The Economic Basis of the Chinese Revolution,* K. WEIDEMÜLLER; *Foreign Life: The Working Class in England and its meaning for English and World Economics,* H. LEVY. Reviews and Bibliography: Keynes on the currency reform of Mr. Churchill; Bibliography on China. No. 10: *The De-Europeanization of the World's Economics after the War,* H. LEVY; *The Trade Balance of France,* E. PREOBRAZHENSKY; *The Crisis of Capitalism in U.S.A. and the Distribution of the Surplus,* SCOTT NEERING; *The Distribution of the State's Receipts in India,* A. MUKHERJI.

NEW BOOKS

English.

BARRALET (ALFRED). The Machinery of Business. An Introduction to Commercial Methods. London: Philip. Pp. 226. 2*s*. 6*d*.

BATTEN (EDWARD). National Economics for Britain's Day of Need. London: Pitmans. 1926. Pp. 217. 5*s*.

[There is proposed a solution of the problem of unemployment by which all may work and each may gain.]

CASSEL (GUSTAV). Fundamental Thoughts in Economics. London: Fisher Unwin. 1925. Pp. 159. 6*s*.

[A summary restatement of views set forth in former writings. The miniature deserves all the praise which has been bestowed upon the originals in two reviews which appeared in the ECONOMIC JOURNAL 1920 and 1924. Some features there criticised have been retained, *i.e.* the predominant part assigned to the attribute *scarcity* in the theory of exchange, the suggestion that Marshall's representation of the factors of production was not duly symmetrical, the placing of price before value in the belief that it should be possible to build up an economic theory without including value among its elementary conceptions.]

CHATTERJEE (B. C.) and COUESLANT (L. D.). Economics of Engineering. Benares: Chatterjee. 1925. Pp. 384.

COHEN (JOSEPH L.). Family Income Insurance. A scheme of family endowment by the method of insurance. London: King. 1926. Pp. 47.

[Miss Eleanor Rathbone contributes a Preface in which she blesses the new scheme without prejudice to other schemes.]

COLLER (FRANK H.). State Trading Adventure. Oxford University Press. 1925. Pp. 160.

[A record of the Food Ministry. In its Secretary's showing, at least, when danger threatens the prospect of financial gain is not the only stimulus to endeavour.]

COULTON (G. G.). The Medieval Village. Cambridge University Press. 25*s*.

CROFTS (MAUD L.). Women under English Law. London: National Council of Women. 1925. Pp. 101.

DAWSON (SIR PHILIP). Germany's Industrial Revival. London: Williams and Norgate. 1926. Pp. 276. 15*s*. 6*d*.

ERNLE (LORD). The Land and its People. London: Hutchinson. Pp. 257.

[In a lucid historical retrospect Lord Ernle demonstrates that enclosures were necessary to efficiency, while admitting that they entailed much social hardship. He refutes many fallacies about landlords. Speaking with the authority of one who was President of the Board of Agriculture, he praises enthusiastically the services of "women on the land" in the years 1917–19.]

HAMMOND (J. L. and BARBARA). The Rise of Modern Industry. London: Methuen. 1925. Pp. 280.

HAWTREY (R. G.). The Economic Problem. London: Longmans. 1926. Pp. 417. 10*s*. 6*d*.

["The first twelve chapters are devoted to an exposition of the economic system as it is, and of its operations. It is in Chapters XIII. to XV. that we turn aside to the consideration of human nature. The remaining XVI.–XXXI. are critical and speculative."]

HOBSON (J. A.). Free Thought on the Social Sciences. London: Allen and Unwin. 1926. Pp. 288. 10*s*.

KEYNES (JOHN MAYNARD). A Short View of Russia. London: Hogarth Press. 1925. Pp. 28.

[Leninism is at once "a persecuting and missionary religion and an experimental economic technique." On the economic side Russian Communism has not made any contribution to our problems. The Communist Government exploits the peasant in favour of the proletarian worker; the peasant having obtained his land wants no change of Government. Something more may be hoped from a religion which inspires new sentiments about Money; rendering money-making less respectable. "Out of the cruelty and stupidity of Old Russia nothing could ever emerge . . . beneath the cruelty and stupidity of New Russia some speck of the ideal may lie hid."]

LINDSAY (A. D.). Karl Marx's Capital. Oxford University Press. 2*s*. 6*d*.

MESS (H. H.). Factory Legislation and its Administration. London: King. 1926. Pp. 228. 12*s*. 6*d*.

PANCHOLY (KESARI SINGH). A Brief Introduction to Public Finance. Rewa: "Young Princes" Series. 5 Rupees.

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BRITAIN'S POPULATION PROBLEM AS SEEN BY AN AMERICAN

It is but natural that Britain's economic situation since the War should be explained in various ways and that different policies looking towards its improvement should be advocated by men who hold divergent views regarding its causes. The three chief explanations of the present depression are: (1) that British labour is so inefficient and so given to sabotage that Britain has little or no chance to compete with other countries where labour is more efficient and works with a better will; (2) that the present depression is simply one phase of the regular business cycle, a little prolonged it is true, but to which no special significance should be attached; and (3) that Britain is over-populated and cannot expect better times, or at any rate good times, until she has made a fundamental readjustment to the new conditions prevailing since the War.

Although the first of these explanations contains some truth it may be ignored, because it is customary for capital and labour to blame each other for all the ills of industry as a part of the regular tactics of industrial warfare. The second explanation no doubt contains a measure of truth also and is worthy of careful consideration. To a populationist, however, it is the third explanation which seems most worthy of investigation. If it can be shown that it contains the essential truth of the matter, then it follows that the other explanations can contain only the residue.

To an American student of population, then, the present economic situation of Great Britain is of interest (apart from general humanitarian considerations), chiefly because it seems to throw some light on the nature of the processes of population growth under the regime of modern industrialism. A better understanding of these processes is of great interest to the United States and to all other countries which aspire to positions of prominence in the industry and commerce of the twentieth century,

for, to the extent to which they may be successful in this effort they, like Britain, will become dependent on outside sources of food and raw materials and upon foreign markets for the disposal of their manufactures. It should never be forgotten that every achievement is purchased at a price, and if a nation is to strive primarily for success in world commerce as Britain has done, it should do so with a clear realisation of the price it must pay in the striving and even more in the attainment.

Before discussing the facts which have a direct value in enabling us to make a correct judgment of the nature of the present depression in Britain, it will be necessary to sketch very hastily the conditions which made it possible for Britain to become the "workshop of the world."

Conditions Favouring Britain's Industrial Ascendency

The conditions which made possible Britain's industrial and financial and political leadership throughout the greater part of the nineteenth century were chiefly her long-established pre-eminence in certain manufactures and trade—notably textiles—the invention and early adoption of machinery driven by power—particularly by steam—the presence of readily accessible natural resources rendering the use of power machinery cheap and easy, the possession of a navy and the seamanship which rendered an extension of sea-borne foreign commerce easy, and lastly, though not the least, the practical sense and adventurous spirit to make use of the materials and conditions at hand. In the early years of this modern industrial development it was inevitable that the increased productivity of industry and the increased profits of trade should accrue to the advantage of a comparatively small class of manufacturers and merchants and be used for the extension of their interests. So great and continuous was the forward march of industry and commerce in Britain, and so rapid was the extension of Britain's political control over peoples and countries not yet dominated by Europe, that comparatively little attention was paid to counter-forces which might exert an adverse influence if they continued to grow. The first real cloud on Britain's economic horizon appeared about the turning of the century with the development of German industry and the extension of her trade. Even this did not receive the attention it merited, because two or three generations of almost unbroken success in industry, commerce and finance had very naturally led many people to believe that Britain's position of leadership was almost as natural and inevitable as the tides and that it was secure for a

long time to come. To challenge it was regarded by many business men as presumptuous, and to attempt to supplant Britain was regarded as fatuous.

This attitude of mind inevitably led many men to ignore the fact that Britain's great prosperity and power were based upon a particular set of circumstances, some of which were subject to change. With the changing or disappearing of some of the advantages enjoyed in the early years of her industrial career she was certain to be forced to meet competition such as she had not dreamed of. The War greatly intensified the activity of these competitive forces and swept away certain of her earlier advantages. The result seems to some of us to be that Britain must now for the first time meet real economic competition, and the complexly organised industrial and commercial state of modern times is now to meet its first real test. The question is: "Under post-War conditions can Britain, organised industrially and commercially chiefly for foreign trade, reasonably hope to remain the economic leader of the Western world and to support her population as well as formerly with her present economic organisation?"

In the effort to answer this question I will examine Great Britain's foreign trade from three points of view: (1) the effects of the development of home industry upon the export trade of Britain; (2) the effects of foreign competition upon Britain's export trade; (3) the possibilities of developing new markets for British goods.

The Effect of the Development of Home Industry upon Britain's Foreign Trade

Before the War, Britain was producing about 40 per cent. of her food, a somewhat larger proportion of her wool, all of her coal and about three-fourths of her iron ore. For most other things needful for her life she was dependent upon outside sources. Clearly a country in such a position must give serious consideration to the development of home industry in foreign countries. It is a serious matter for a country so dependent upon its trade with other nations to lose markets, and the loss is just as serious when they are lost to the home industry of a country as when they are lost because of the competition of a foreign country in the markets of another foreign country. The War made it inevitable, if not necessary, that many countries which had hitherto been buying foreign produce would undertake to supply themselves, and of course once an industry is established, it is difficult for a foreign

competitor to uproot it. Tariff barriers may easily be made well-nigh impregnable. It would be a mistake, however, to suppose that the War did more than hasten this process of supplanting foreign trade by home industry. The movement was well under way before the War, and was merely given impetus by the inability to secure the customary foreign imports.

A few facts regarding the industrial development of some of Britain's best customers will show how the world situation is changing as regards foreign trade, and will throw much light on Britain's present plight. The point I would make here is that the falling off in purchases from Great Britain since the War, which most of her best customers show, is not merely a matter of post-War mal-adjustment or a passing phase of the business cycle, but represents a new alignment of industrial power in the world, and Britain cannot but suffer in the course of these changes.

In Australia there has been a very rapid increase in the proportion of the population engaged in non-agricultural industry and in commerce. In 1894 there were about 133,000 persons engaged in manufacturing, in 1921 there were about 395,000—a threefold increase in twenty-seven years, during which the population increased but 62 per cent. By 1921 only 37·35 per cent. of the population was living in rural areas and only 22·8 per cent. of the occupied persons were engaged in agriculture. Comparing the periods 1909–13 and 1919–23, Australia's imports from the United Kingdom declined about one-third (fixed money), and her imports from all countries show no increase during this time although her population increased 22 per cent. With her occupied people distributed as follows in the different kinds of work: professional 8·7 per cent., commercial 15·3 per cent., transport and communication 9·0 per cent., industrial 31·2 per cent., mining 2·9 per cent., agricultural 22·8 per cent., domestic 9·1 per cent., it seems unlikely that Australia will be a large buyer of manufactured goods in the world's markets in the future. There is little doubt that she will buy rather large absolute amounts for some time, but the foreign goods used will comprise an ever smaller proportion of her total consumption, and they will more and more tend to be specialities which can be produced better and more cheaply abroad. Australia may be counted out as an agricultural country trading food and raw materials for manufactured goods. She will soon be largely self-sufficing, for she has the basic raw materials of modern industry in abundance. There is no need to suppose that Australia will become self-sufficing as rapidly as its people wish, to make the prophecy with

assurance that the period of its industrial minority is drawing to a close.

Canada, like Australia, is becoming industrialised and is losing the character of an agricultural dependency of Great Britain. The rural population has declined from 68·2 per cent. of the total in 1891 to 50·5 per cent. in 1921. In 1890 there were 369,595 employees engaged in manufacturing, and in 1920 there were 685,349, an increase of 85·4 per cent. Population increased 81·8 per cent. during this period. The net result of this growth of the non-agricultural industries was that agriculture employed only 34·3 per cent. of the occupied population in 1911 as compared with 45·8 per cent. in 1891. (The data for 1921 have not yet come to hand, but presumably it employs even a smaller proportion at the present time.) Although the general process of urbanisation and industrialisation has not proceeded as rapidly in Canada as in Australia, yet it has already gone far enough to remove much of Canada's dependence on other countries for her manufactured products. Her imports from the United Kingdom declined 35·6 per cent. from 1909–13 to 1919–23, and her total imports increased only 33 per cent. as compared with 122 per cent. in the preceding decade. Her population increased 22 per cent. It seems there is no room for reasonable doubt that another of the British dominions will soon be on an almost self-sufficing basis industrially.

South Africa, too, is moving rapidly in the direction of a self-contained industrial organisation. This is not as evident in the statistics of those employed in the different types of work as it is in Australia and Canada, because practically all the unskilled work is performed by negroes and the comparable data apply to Europeans only. The percentages in the chief occupational groups in 1921 were: agriculture 35, commercial 19, industrial 18·8, professional 11·3, and transport 6·1. The statistics of factory production in South Africa show that between 1911 and 1921 the amount of goods (fixed money) increased threefold; they also show a very rapidly increasing consumption of coal in manufacturing and a consequent great increase in the horse-power of the manufacturing establishments. South Africa is rapidly coming to manufacture a large part of the goods needed for home consumption. The fact that the increase of the imports from 1909–13 to 1919–23 was only 1·5 per cent. in terms of fixed money, while the European population increased 16 per cent., also shows the growing industrial self-sufficiency of South Africa.

The trend of the situation in India is by no means as clear as

in the parts of the British Empire just treated. There appears to be an increase in the proportion of the population engaged in agriculture in recent years. Paradoxical as it may seem, this increase in agricultural workers is a direct result of increasing industrialisation. The non-agricultural village population thrown out of work by the adoption of factory methods of production has no choice but starvation or work on the land. Custom and poverty both render the capacity of the people to absorb machine-made products less than could be supplied if the workers accustomed to supply the manufactured goods by hand labour were all put to work on machines. Consequently it would appear probable that the increasing industrialisation of India will be accompanied for some time by an increase in the proportion of the population engaged in agriculture. That modern factory production is growing in India admits of no doubt, although its growth is slow as compared with that of Canada or Australia. The fact that such industries as there are, are organised in the customary capitalistic fashion, means that they do very little to increase the consumption power of the workers, and besides that they give rise to a serious unemployment problem, thus decreasing the consumption power of these unemployed. Furthermore, by driving more people into agriculture they probably tend to diminish the individual consumption power of the agricultural population, which is close to three-fourths of the whole. Indeed, if only a small increase in the proportion of the population engaged in agriculture were to take place, it might so reduce the productive power of the people as individuals that imports would decline rather than increase. We should realise, too, that India's capacity to absorb imports is very small generally it is less than four dollars *per capita* per year and that it needs but little increase of the pressure of numbers on agricultural resources to reduce even this small capacity. In view of this general situation in India it seems that she is not likely to be in a position to increase her imports to any great extent in the near future, if, indeed, the decline of recent years may not be of permanent nature.

What has been said about India applies in a general way to China. There are, however, some evidences that the Chinese are more interested in Western industrial organisation than the Indians, that they have more of a practical bent, and that they are more ready to make use of the increased power of machine production than the Indians, provided they can do so in their own way. Due to the entire lack of statistics regarding China's industrial development, it is impossible to tell how rapidly

factory production is displacing hand production and foreign imports. A close scrutiny of the factories listed in such a publication as the *China Year Book* gives one the impression that factories must be increasing in China almost as rapidly as the capacity of the people to absorb machine-made products, while the figures for foreign trade certainly show no very rapid increase as a whole, though certain countries are doing a much larger business with China than they were ten or fifteen years ago.

That some of the other large customers of Great Britain are very rapidly coming to supply their own needs for manufactured goods is too well known to need proof. The United States and Japan made very rapid progress industrially during the War, and at present their imports from Great Britain have fallen off considerably from what they were in pre-War days (about one-fourth). It is beyond dispute that Great Britain has no very great advantage over these countries in most types of manufacturing, and in some lines it is at a distinct disadvantage. Only in those manufactures where Great Britain has some natural advantage or some special skill can she hope to hold a position of dominance in her trade with these countries in the future. Germany also belongs in this group, although it is too soon to tell just what permanent effects the War will have on Germany's foreign trade. There is some reason to believe that she will not be as good a customer as in pre-War days for a decade or two at least, and possibly never as good a customer of Britain as formerly, because her needs run in the same direction as Britain's, and she may find it advantageous to deal more and more with countries which can furnish her raw materials and food.

The prospects for continued profitable foreign trade in South America are distinctly better than in the other countries surveyed above. There is little evidence of any increased industrial activity there as yet. Certain factors no doubt are more favourable than before the War; for example, the trend towards the equalisation of labour costs throughout the world, which was greatly accelerated. But at present it appears that South America is very greatly handicapped by the lack of cheap fuel. No doubt in time there will be a large amount of hydro-electric power available, but it will take some decades for its development, and in the meantime home-made manufactures would appear likely to make small inroads on imports of such goods.

It is so impossible to know the truth of what is happening in Russia that one hesitates to base any judgment of her probable

share in world trade in the near future upon what seem to be the facts at any given time. It appears probable, however, that Russia will rather slowly develop her industrial organisation as the servant of agriculture rather than as an end in itself. If this should prove to be the case it will be organised consciously with the purpose of making the country self-sufficient. In fact there are a good many tales to the effect that concessions are being granted to foreigners with the express object of developing those industries which are generally regarded as the basis for national self-sufficiency under the present economic regime. Until these industries are going, Russia will no doubt import considerable goods of various kinds, but particularly agricultural machinery for the modernisation of her farming. The lion's share of this business will probably go to Germany, with the United States a close second, provided her State Department shows only a little practical common-sense in establishing friendly relations with Russia. As yet it has shown none. Britain's exports to Russia in recent years are less than one-third (fixed money) of what they were before the War. They should grow somewhat in the near future, but it is probable that many articles of luxury formerly exported to Russia from Britain and France will find no market there now. Machinery is likely to constitute a considerable part of Russia's imports in the near future, and to export machinery is to kill the goose that lays the golden egg. Relatively heavy imports of machinery mean that the stage of self-sufficiency is rapidly approaching. It would seem rather doubtful then whether Russia is going to become a great market for manufactured goods from other countries, and it is even more doubtful whether Britain will get any great share of this trade, which will consist primarily of machinery.

This brief and necessarily rather superficial survey of the development of home industry as a factor affecting foreign trade shows that in most parts of the world there is a growing tendency to supply the home market with domestic goods. The only countries where this does not seem to be the case are those where the lack of natural resources limits the growth of industry in a rather drastic manner. It thus appears that markets for exports have a tendency to dwindle as the newer countries (from an industrial standpoint) find out what are their natural resources, accumulate or borrow capital, and develop the technical skill requisite for machine production. If this is the case, a market, even when once secured, is a very uncertain quantity from this cause alone. When we turn to the consideration of competition

as a factor in world trade we shall see that this uncertainty of stable markets in greatly increased thereby.

Great Britain and Foreign Competition for World Trade

As was mentioned above, Great Britain stood supreme in the markets of the world before 1900. About that time we began to hear of the bumptiousness, arrogance, etc., etc. of the German trade agents in different parts of the world. Naturally anyone who disturbs what we regard as our vested interest is *persona non grata*. The development of this feeling of irritation on the part of the British towards the German trader merely proves that German competition was becoming efficient. The fact that German industry was a recent development meant that it had fewer of the handicaps of tradition, that its agents were necessarily aggressive in their attempts to introduce their goods to the world, and that the older comfortable methods of the established British traders and manufacturers would no longer be effective. The steady progress of German trade in the two decades preceding the War is ample proof that the complaints of the British traders had a sound basis in fact. Germany was becoming a formidable competitor for the markets already well developed, and was pushing vigorously into new fields. Her progress in South America was especially rapid, and after 1900 she began to gain on the British, relatively. Temporarily the War removed Germany from the competition, but at the same time it removed Britain's best customer. Britain's exports to Germany, 1919–23, were not one-fourth of what they were in 1909–13.

In the meantime Japan and the United States, both strengthened industrially and financially by the War, appeared on the scene as formidable competitors for the trade of the world. Both countries, under the stimulus of war prices, developed industrial capacity beyond the needs of home consumption under the existing economic regime, and naturally they sought to employ this in supplying foreign markets. That they were both reasonably successful is shown by the fact that (fixed money) the exports of the United States increased about 45 per cent. from 1909–13 to 1919–23, and those of Japan about 90 per cent. The significance of this is more apparent if we recall that the United Kingdom's exports fell off 12 per cent. during this same period. In the Orient Japan made great gains, and in certain kinds of goods has become a formidable competitor of Britain's. In textiles particularly has she made such remarkable progress that she has even taken a large slice of Britain's trade with India, and has been

very active in establishing mills in China in competition with the British. The increased foreign trade of the United States has not been so concentrated in one area as that of Japan, although its largest proportional gains have been registered in the Orient. But in Europe and South America also a large expansion has taken place.

Both the United States and Japan have also challenged Britain's large control over the sea-borne traffic of the world. They are both maintaining fair-sized merchant fleets and, like Germany before the War, assert a claim to their share of the world's sea freights—a claim which apparently is rather strongly resented in British shipping circles. It is easy to understand that Britain feels she has a vested interest in ocean-borne freight and in foreign markets which other countries should not disturb. Especially is it felt that the United States and Japan have taken advantage of the War to encroach upon British preserves, and that such conduct is unbecoming. It is the same feeling that prompts the ascendant class in any country to cry out against any other class that threatens its security.

It is also interesting to note that some of the self-governing dominions of the British Empire are beginning to look about for markets for their manufactures and to talk of their ability to supply certain of their neighbours with the types of goods they can make advantageously. It is, indeed, but a short step from industrial self-sufficiency to participation in world commerce as exporter. Witness the progress of the United States and Japan. In addition, therefore, to the actual competition now in the field, Germany, Australia, and Canada are in the offing ready to join in the race as soon as conditions become a little more favourable to them. Germany should be able to get and hold the lion's share of the foreign trade of the countries of Central and Eastern Europe. No country can successfully compete with her in this field except as it has special advantages with respect to the manufacture of particular types of goods. As mentioned above, Russia apparently has no intention of remaining dependent on outside sources for the essential manufactures she needs. The same seems to be true of Poland, Czecho-Slovakia, and others of the new States in Central Europe.

The Possibility of Developing New Markets

In view of the development of home industries in countries heretofore importing large quantities of manufactured goods, in view of the increasing competitive activity of the United States,

Japan and Germany, and of the prospective competition of still other countries, there would seem to be but one source of hope for Britain's foreign trade, that is, the development of new markets. I shall discuss this matter only from the standpoint of economic probabilities in the regions where new markets might be developed, disregarding entirely the questions whether British genius is fitted to search out and develop these new markets, and whether, if British genius is equal to the task, the present economic organisation of the country is sufficiently adaptable to take full advantage of these new markets.

It is impossible to distinguish rigidly between new markets and the extension of markets already organised. From the standpoint of the industry of the exporting country, however, that latter is the more desirable type of trade, because it means merely an expansion of the present industrial organisation, while the development of new markets inevitably involves considerable adjustments in the industrial organisation to meet the special demands of the new trade. In considering the effect of the development of home industry on foreign trade it was pointed out that South America seemed most likely of all the fairly well-developed areas of the earth to remain a good customer for manufactured goods. Of course, a great deal of South America is practically undeveloped; consequently both the extension of present trade and the development of new kinds of trade are possibilities there. In South America, as in Africa, Malaya, the East Indies and Northern Australia, the problem of new trade is primarily one of the development of the tropics. As it is impossible to discuss this question in any detail here, I shall mention only a few matters which seem to me of the greatest importance in considering the probable development of the tropics.

The whole matter of the white man's ability to live and work in the tropics is an open question. Many Australians are inclined to take the view that he can live and work and thrive in the tropics. Most other people seem to think that he cannot. Personally I am inclined to agree with the Australians, provided certain conditions are met. As chief among these conditions I would say that he must become, if not a teetotaller, at least a sparing user of distilled liquors and a very moderate user of the lighter liquors. The heavy alcohol consumption of white men in the tropics undoubtedly contributes largely to the high proportion of physical breakdowns among them. The second condition would be that he reorganise both his household economy and the European productive economy which he carries with

him. The third condition would be that he make the fullest use of present knowledge regarding tropical sanitation and medicine and extend this knowledge as rapidly as possible.

It is by no means impossible for the European to meet these conditions, but as yet he has shown little disposition to do so. Even in the sugar country of Queensland his alcohol consumption is high and his domestic economy is thoroughly European. Furthermore, I see no prospect of the European giving the tropics a real trial within the time when its success might furnish Britain and other exporting nations with the market they need. Besides, there is reason to believe that the reorganisation of the household and industrial economy referred to above would result in greatly reducing the desire for manufactured goods, and consequently his demand for such goods would be much less than is generally assumed. It is emphatically my opinion that the adaptation of the European to tropical living would be accompanied by the development of a greatly simplified mode of living, and also by a diminished production (probably due both to lowered capacity and weakened inclination) which would reduce his effective demand for European manufactures much below that of his brother in the temperate zones. I would conclude, therefore, that white settlement of the tropics would not mean a great expansion of commerce in manufactured goods even if it should proceed at a rapid pace. And there is no sign that it will proceed at more than a snail's pace.

What then are the possibilities of the development of markets among indigenous tropical populations? Fortunately we have some facts which will help us to answer this question sufficiently accurately for practical purposes.

Java is one of the best, if not *the* best, governed of all tropical dependencies. From its trade we should be able to get some notion of the capacity of a thrifty (?), industrious (?), peaceable native people to absorb European manufactures. In the years immediately preceding the War (1911–13) the average imports were about \$3·50 *per capita*. Of this about one-eighth was food, so that the capacity to absorb other imports was only about \$3·00 *per capita*. The total exports were only \$3·80 *per capita*. This would represent the upper limit of capacity to buy foreign goods of all kinds. Truly no great foreign trade can be developed with people of this limited capacity to produce for exchange. Another way useful in helping us realise the limited capacity of the natives of the tropics to absorb imports is to figure their ability to supply food to other regions. On a calorie basis

and with no proper allowance for the extra work involved in furnishing a balanced diet, it took ten Javanese to supply one European with food at the port of export (chiefly in the form of sugar). Again, we see that there is but little chance of tropical dependencies furnishing the new markets needed by Britain (to say nothing of other countries) if she is to preserve her present economic balance.

It may, of course, be urged that, though the tropical natives have now but a low productive capacity, there is no reason why it should not be increased many-fold by the proper use of machinery in agriculture and the development of industrious habits. The fact is, however, that tropical agriculture as a whole does not lend itself to extensive machine methods of tillage, and as for changing the habits of the natives in any length of time sufficiently short to be of use to Europe, it is not to be considered seriously. Not only do the ends for which Europeans work not allure the natives of the tropics, but the very conditions of existence are so different that it appears doubtful whether our values will ever be the values of a tropic-dwelling people. And I think this would probably also be true of a tropic-dwelling white race.

But even if we suppose that all the people now living in the tropics could be organised for exploitation as well as India and Java, it probably would not increase the annual trade possibilities of the world much more than $1,000,000,000 about equally divided between exports and imports. This amount is not sufficient to make prosperous the trade of Britain alone, and it will, of course, be divided between several nations. Furthermore, no one believes it possible to effectively organise these tropical peoples within the time necessary if these new markets are to be of use to Britain in the present juncture.

The Interpretation

The meaning of the facts set forth here is too plain to be mistaken. Too great a dependence on industry and commerce, especially on export trade, is dangerous. The progressive development of a nation's welfare is mortgaged to too many circumstances over which it has little or no control. The conditions which make it possible for a nation to flourish industrially and commercially in comparison with its neighbours are of short duration. Either the resources on which its industrial prosperity rests are exhausted or become of less advantage due to the discovery of others just as good or better elsewhere, or the technical

skill which was a monopoly at one time becomes widely diffused, or the supply of capital which was also a monopoly becomes more plentiful and flows out to the development of the resources of foreign countries. In any case the monopoly which for various reasons can be maintained for a time cannot be maintained indefinitely, and when real competition for foreign trade arises the highly industrialised country finds itself at a disadvantage in many respects.

Things are moving faster now than in the days when Britain gained her industrial supremacy, and if the United States or Germany or Japan should attempt to follow in Britain's steps, devoting itself almost exclusively to the development of factory industry and world trade, and neglecting its agriculture, that country will soon rue the day when it followed after false gods. A country which gets too far away from Mother Earth, like Antæus of old, loses much of its strength and shortly becomes the prey of every adverse wind that blows. It is affected more seriously by every economic disturbance throughout the world than a country which draws most of its strength from its native soil. It is a fact we too often forget, that strong plants must have roots and that roots grow only in the soil.

By this time it is no secret that I believe Britain is overpopulated, considering the present economic organisation of the world. I believe it is a vain hope that says Britain will "muddle through" now as she has done heretofore. In the pre-War world Britain could support her population and its increase of about 1 per cent. per annum with a rising standard of living, but if the facts are as I have given them, and I believe I have presented them accurately, she cannot reasonably hope to support as large a population to-day at the same standard of living. We live in a world in which every equilibrium is relative, and the economic equilibrium of the last three-quarters of a century is not the equilibrium of to-day, and that of to-day is not that of to-morrow.

What does this signify for Great Britain? Simply that her industrial organisation is not adapted to the support of her population as it was a decade or two or three ago. For well on to two centuries Great Britain has expanded her economic system in two directions only—(*a*) machine production, and (*b*) enlargement of commerce and financial operations. Agriculture has been almost totally neglected until it employs only about 9 per cent. of her occupied people. It would seem that the time has arrived when Britain must work towards a revival of agriculture if she is to support her present population in reasonable comfort and

prevent the inevitable deterioration which will follow upon long-continued unemployment and the receipt of public doles.

As for those countries which now aspire to become industrial countries after the manner of Britain, let them ponder upon her situation and ask themselves in all seriousness whether the gain of the moment is worth the effort. No doubt those who stand to profit largely by industrial overgrowth will confuse their personal profit with national and world welfare. This is but natural, and has always been done. Has the time not arrived, however, when we can take a larger, longer view of these processes of growth in human life than the business man is accustomed to take, and chart a course better calculated to lead to human betterment than that we have been sailing so blithely for the past three or four generations?

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AN APPROACH TO THE THEORY OF BUSINESS RISKS

II

An earlier paper on this subject, printed in the Journal for June 1925, was concerned mainly with the real social costs arising from the presence of risk and with the manner in which payment is obtained by the parties on whom those risks fall. It may be convenient to summarise those of its conclusions which are relevant to the present discussion; the more so as it seems desirable to make some change in terminology and to draw attention to a corollary to the previous argument.

Recapitulation.—The incalculability of the results of economic operations, by impairing the close and continuous adjustment of resources to wants, results in a heavy net loss of utilities which tends to fall on the consumer, partly directly, partly indirectly through an increase in costs of production.

The *direct* loss of utilities to the consumer arises from the circumstance that there is necessarily a loss of consumers' surplus when a given average supply of any product at a given average price is ill-adjusted, as compared with when it is well-adjusted, to demand. Just as a supply of hot water which is always on tap yields more satisfaction than an otherwise similar flow which is not continuously available on demand; or as a superabundant harvest may fail to make good the damage done by a preceding year of famine. This loss is peculiar, inasmuch as it originates on the side of Supply and yet there corresponds to it no increase in expenses of production. Moreover, it is evident that it may often be very important. In a remote Russian village, for example, before the war, I was told that the visiting conscript officers would sometimes find no lads of the age-group they were registering; the reason being that eighteen (or was it twenty?) years previously the harvest had been rather a poor one and the babies of the year had, of course, not survived it. But although this direct loss is peculiar and may occasionally be very important, its amount has been very greatly reduced by better marketing, and nothing more can be said about it here. Henceforward the argument is concerned only with that

part of the total loss arising from Incalculability which falls on the consumer indirectly: that loss of utility which reaches him through an increase in the real and money costs of production. It is to this part that we now turn.

Inasmuch as Incalculability impairs the adjustment of means to ends, it results in the wasteful employment of resources; it reduces their productive efficiency; it increases real costs. These additional costs, speaking broadly, act like ordinary costs upon supply. Like these other costs they tend to check investment, to limit output, to raise supply price and to be transferred to the consumer. But in spite of this broad similarity in their mode of action the costs of Incalculability differ from ordinary costs; they are peculiar in two respects.

The first peculiarity of these costs lies in the fact that the payment for bearing them is made in two parts: one of which disappears from view, being absorbed in additional expenses of production, while the other remains apparent in the form of an addition to profits. When a business man accepts a risk, he needs to increase his estimate of his expenses of production by additions to innumerable items of expenditure on labour, materials, plant and so on. The aggregate addition is his estimate of the amount which, over the period of investment which he takes into account, will just compensate him for the impaired efficiency, in particular for the discontinuity of employment, of each of these elements of productive power. This addition, which he includes like any other cost as a part of his necessary outgoings, may for present purposes be described as his *amortisation charge.* But when he has made this addition to his charges he has not yet covered the whole of the real costs arising from the acceptance of the risk. For his calculation of his additional expenses of production and of the amount of the product which he can sell at a price which covers his full costs are only estimates, and are consequently liable to error. This error is perpetually disclosing itself in the form of fluctuations in his net receipts, of an uncertainty of income which hampers his business adjustments and constitutes a real cost. It seems reasonable to suppose that in general business men will be unwilling to bear this cost without compensation: and that they will include in their prospective outgoings a further charge for Uncertainty-bearing. In ordinary business practice the payment for this cost will be accounted for as a part of profits. Finally, it must not be overlooked that the acceptance of risk adds immensely to the demands on organising faculty and calls

for a greatly increased expenditure of the business ability by which the real costs of risk are reduced. The payments made for this additional work form, it was urged, much the greater part of that element of profits usually known as earnings of management.

These then are the conclusions with regard to the social costs of Incalculability other than those falling directly upon the consumer. The real costs themselves are conveniently separable into three parts. Corresponding to these costs are the charges made by business men for accepting them: three theoretically distinct prospective payments. Corresponding again to these prospective payments are three realised payments, in their nature lawless in the short run and in the long run only partially amenable to a law of averages. Of these real costs, the first part may be described as a reduction in the efficiency of productive resources; corresponding to it is the *amortisation charge*, the prospective payment for innumerable additional expenses of production. The second part has been described as a reduced efficiency of income; its prospective payment is the charge for Uncertainty-bearing, which in ordinary business accountancy is included among profits. The third part consists in the additional organising ability requisite to deal with perpetual readjustments to an incalculable business environment and is paid for by prospective earnings of management. The *expectation of loss* which arises from the occurrence of these *three real costs together* is here taken as the definition of the term Risk, and the three corresponding prospective payments together form the *Risk charge*. This risk charge is, then, that prospective additional return which is just sufficient to induce a business man to accept a given risk; it is this charge, and not the *realised payment*, which forms the supply price of risk-taking and enters into the price of the finished product.

There is a corollary to this argument. If its general drift were agreed to, it would seem possible to simplify the definition of Profits, in particular by avoiding the logical need for a separate factor of production—Uncertainty-bearing—and to bring the scope of the term more nearly into line with the meaning given it in America. Thus, suppose it to be agreed that, as urged in the previous paper, the main part of the activities of the entrepreneur arises from the presence of risks. Then that residual part of his work which does not so arise and which is of the nature of routine superintendence might be marked off and classed, as it is already classed in the accountancy of large firms,

as a part of Labour. The work of the entrepreneur would then be identified with the supply of those services which are already regarded as distinctively his: those services which depend on initiative, resource and adaptability and are directed essentially to the perpetual experiment and perpetual readjustment which constitute active risk-taking. In correspondence with this rearrangement, our present *Earnings of Management* would be classed in small part as Wages, in the main as the reward of risk-taking; risk-taking and risk-bearing would be assimilated; and Profits, whether they accrued to entrepreneur or capitalist, would be defined as net interest plus the reward for taking risks.

The second characteristic which distinguishes the real costs arising from Incalculability from other real costs is more fundamental. It lies in the profound difference in their originating conditions. While ordinary real costs arise from the intractability of the materials at our disposal and the consequent need to expend energies in shaping things into forms and moving them into places where they can better serve our wants, these costs of Incalculability arise from our imperfect understanding of the conditions in which we work and the consequent frustration of our designs and waste of our energies. The machinery by which these costs of Incalculability are reduced has usually, therefore, a very different technique from that of the machinery whose development in the last century has so greatly reduced the costs of making and moving. It is the object of this paper to discuss, or at least to begin to discuss, the social machinery devised to reduce those real costs which arise from the presence of Incalculability.

Some further preliminary considerations.—In spite of this lengthy recapitulation, it still seems impossible to proceed with the discussion of the social devices for meeting risks without first dealing with certain latent obscurities which must otherwise be troublesome. In the first place, inasmuch as the occurrence of disturbing price movements is not wholly due to our imperfect knowledge of the present or the future, it seems desirable to mark off more clearly than has yet been done what part of these disturbances is claimed to be due to the presence of risks. But more important than that is the difficulty of establishing a relation between the cost which risks impose on the individual and that which they impose on society as a whole. It is evident that the actual realised loss falling on any producer as a result of taking any given risk may differ widely from the net loss to producers and consumers taken together. The £20 m.

which Bradford, not without a secret pride, claims to have lost as a result of the recent heavy fall in wool has evidently little relation to the loss sustained by the country as a whole. But unless some relation can be established between these two things it will be of little advantage to discuss devices which reduce the risks of the individual producer, for there would be no assurance that the reduction had any appreciable social significance. These two main difficulties and others associated with them can most conveniently be dealt with by means of a brief consideration of the influence of risk on value.

Let us first assume two conditions: the one that resources are completely mobile in the sense that they can move freely both from place to place and from employment to employment; the other, that the product of these resources is perfectly calculable as a result either of an immense advance in human understanding or, more conveniently, of an immense simplification in the matter to be understood, *i.e.* by the assumption of a Stationary State. In these conditions we have two simple results: price conforms continuously to full expenses of production; these expenses yield continuously a normal return to the producing parties.

When the first assumption is withdrawn and the immobility of resources thereby readmitted, the first of these two results is modified; price no longer conforms continuously to full expenses of production. For immobility of resources necessarily implies inelasticity of supply, and this inelasticity in the face of changing demand necessarily results in temporary maladjustments, and consequently in innumerable divergencies of prices from their equilibrium positions. Railways, in order to utilise their productive capacity, make their millions of exceptional rates, hotels vary their charges with the season, fruit and vegetables change in price from day to day, and many other products increase in value with their period of storage. Hence even in a world whose conditions were perfectly calculable there would be great waste of productive capacity, innumerable temporary maladjustments of resources and as numerous divergencies of price. But in spite of this the course of prices of any product would be such as would yield normal returns to the resources engaged upon it during the period of their investment taken as a whole. More exactly, the *average* price of any product during the active life of the buildings, machinery and specialised skill by which it was made would yield the net rate of interest upon the invested capital; and the second result would still hold true, that prices yielded normal returns to the producing parties.

The removal of the second assumption, that of the Stationary State, restores the actual business situation in which the conditions of supply and demand are imperfectly calculable. In these conditions maladjustments of resources and consequent price fluctuations are, of course, immensely increased. The second result no longer holds true. The *fact* of average prices yielding normal returns disappears. There remains not an *actual* equilibrium, but a *tendency* to an equilibrium, a tendency to a level of prices which yields normal returns. In the light of these considerations an attempt must be made to deal with the two difficulties indicated above.

The first difficulty arose from the need to make it quite clear that only a part of the incessant maladjustment of resources to wants is due to the presence of risk. What that part is, was indicated in the previous paragraph by the consequences of readmitting the condition of Incalculability. These consequences, that is to say, the real costs due to the presence of risk, consisted of the addition to those maladjustments which would be present even in the Stationary State, and may be expressed as a further reduction in the efficiency of productive resources and a reduced efficiency of income. The second difficulty was concerned with the relation between the individual and the social cost of risk. In order to meet it the argument must be pressed a little further.

If the individual producer employed only his own resources and were concerned only with maximising the amount of his product, his problem would be so to engage those resources that each elementary part yielded continuously its maximum contribution to the physical output. In such conditions he would be threatened only by *technical* risks, by frustrations of effort arising from such causes as fire, accident and defective operation. In such conditions, too, the individual loss arising from such unforeseen occurrences would be identical with the social loss, for each would be measured by the reduction in the physical product (*plus* a minor loss due to the reduced efficiency of individual income), and the particular difficulty under discussion would not arise.

But in actual practice, of course, the producer must consider not only the volume but the value of his product. He is concerned not only with the technical problem of adjusting resources to output, but also with the commercial problem of adjusting output to demand. Under free competition he is concerned, in company with his fellow-producers, in so adjusting both resources

and output that the amount produced will be just carried off at a price which covers full expenses of production inclusive of profits. His liability to error in solving this double problem gives rise to his *commercial risks*, which, for simplicity of statement, we may take to be represented by the variability in the price of his finished product. Inasmuch as the conditions in which he operates are largely incalculable, the precision of these adjustments is impaired, partly by errors in forecasting physical output, partly by errors in forecasting demand, and the result is seen in incessant maladjustments of supply. Each such maladjustment, as it is disclosed, causes a price fluctuation, and each price fluctuation results in a transfer of wealth from producers to consumers or from consumers to producers. The occurrence of these transfers inevitably destroys the relation between the social and the individual loss resulting from the acceptance of any particular risk; for while the loss falling on the community as a whole is measured by a waste of productive power due to its misdirection, the loss falling on the individual producer may be indefinitely greater or less, may be positive or negative, according to the direction and magnitude of the particular price change in question. In 1914 the inability to forecast an abnormally large physical output of hops resulted in heavy losses to farmers; more recently the inability to forecast the growing demand for rubber has brought exceptional profits to producers; yet both these effects were due to a misdirection of resources which was injurious to society as a whole.

It is plain enough then that not only the magnitude but also the distribution of the realised loss resulting from the taking of any particular risk is essentially arbitrary; and we must accept the conclusion that there is no necessary relation between the loss falling on the individual producer and that falling on society as a whole. But chaos in short periods is not inconsistent with complete conformity to law in the long run. It may be that this divergence between the individual and the social loss will disappear when we contemplate the results not of individual risks, but of the series of risks which is more truly representative of the operations of business men. In order to contrast the two it is convenient to return to the notion of the "tendency to normal returns" and separate the two different influences of which it is compounded. There is first the liability to error in forecasts which is responsible for the condition just described; it works consistently to cause the realised loss resulting from any risk to diverge on one side or the other of the *amortisation*

charge which enters into the supply price of the product. There is secondly the inherent tendency for the effects of independent errors to cancel one another, reinforced by the deliberate corrective influence of experience; together these work to cause the *average* realised loss to conform more and more closely to the *average amortisation charge*. As this latter influence becomes more and more powerful, the tendency to normal returns becomes more and more effective, until at the limit the average realised loss, taken over the whole period of investment, becomes identical with the average *amortisation charge* throughout that period.

In the limiting case we have then these results. In the short run errors in forecasts and transferences due to price changes govern arbitrarily: in consequence there is no close connection between the price of the product and its full expenses of production or between the *amortisation charge* of the producer and his realised loss, and no necessary relation between his realised loss and that falling on the community as a whole. In the long run the effects of errors and transferences are neutralised: hence *average* price conforms to full expenses of production, for it contains an *amortisation charge* which is identical in amount with the *average* realised loss of the producer: and this individual loss is identical with the average of that falling on the community as a whole. In other words, Incalculability creates a tendency to error and with it a probability of loss. This tendency to error works persistently in the short run to cause divergencies between price and expenses of production, between realised loss plus the price for Uncertainty-bearing and the *risk charge*, and between individual and social loss: while cancelling and corrective influences work in the long run to maintain normal relations between the average values of these various quantities; and the extent to which arbitrariness thus passes into conformity with law is measured by the degree of effectiveness of the tendency to normal returns.

The present argument fortunately does not require us to discuss how effective that tendency is in the actual business world; its purpose has been only to bring to the surface some of the very confusing obscurities latent in commercial risks and to indicate the supposition on which it will proceed. This supposition is that the connection between the *average* realised loss falling respectively on the producer and on the community as a whole is sufficiently close to justify our regarding a reduction in the one as broadly equivalent to a similar reduction in the other.

The reduction of risks.—Taking as given the limitations of

human faculty, the origin of business risks must be looked for, it would seem, in that social change whose volume and intensity determine the degree of social instability and consequently the obscurity of the business outlook. Possibilities of war, insecurity of property, variable standards of value and unstable tariff policies: all these are expressed in an imperfectly calculable outlook. This incalculability, greatly reduced by an enormous activity in the sifting and distribution of information, infects all forecasts with error and so gives rise to a great volume of business risks. And these risks, heavily increased by that immobility of the machinery of production which hampers its rapid readjustment to changing conditions, find further expression in realised losses in the form of productive resources misdirected and discontinuously employed. The remote regions in which these risks are constantly being formed, the political and social policies by which their formation is largely influenced, and the activities of the Press by which they are reduced must be left without discussion. Accordingly the resultant volume of business risks is taken as given; it is conceived as falling upon innumerable producing groups; and the argument is directed primarily to considering how these groups react to its pressure, no account being taken of the manner in which the contracts binding together the various parties in these groups determine the ultimate distribution of these risks among entrepreneurs, landlords, capitalists and workpeople.

Technical risks.—It is convenient to begin by first considering those risks which are independent of values and are associated with the technical adjustments designed to attain the maximum volume and quality of physical product. Their importance lies partly in the direct loss resulting from the failure to attain this maximum; partly in their effect in causing incalculable fluctuations in supply and thereby contributing to those maladjustments which are later considered as a whole under the heading of commercial risks.

The technical operations of every manufacturer and merchant are perpetually being frustrated by innumerable causes of greater or less importance which individually are impossible to foresee: yarns fail to take the dye, steel castings disclose defects, workmen are injured by accidents, ships are damaged at sea, and fire may destroy the whole apparatus of production. But although it is easy to discover particular processes, such as the firing of lustre ware, where these risks are very heavy, and although they are present at every stage of every operation, it yet seems true

that in industry proper the direct loss of physical product which they cause forms only a small part of the total realised loss resulting from risks. An example may be taken from coal mining: in the two years 1923 and 1924 the number of coal winding days lost as a result of accidents to men and machinery was only one-eleventh of the time lost by "transport difficulties and want of trade," and less than one-eighth of the time lost by holidays. Again, during the nine years 1905–13 a little over 1 per cent. of the commercial steam tonnage of the United Kingdom was annually lost at sea. This figure presumably represents a substantial part of the annual loss resulting from the technical risks of the shipping industry, but it seems insignificant in comparison with the annual waste of productive capacity which must arise from the operation of commercial causes. The point need not be pressed. For there would be no great gain if we were able to estimate closely the direct loss which arises from technical risks in industry proper. What is more closely relevant is the consideration that in industry proper these technical risks are not so large, or their average importance so difficult to estimate, that they are a cause of large incalculable fluctuations in supply. And this consideration is relevant because these conditions form so sharp a contrast with those of agriculture, whose situation is dominated by its technical risks.

Agriculture is peculiar in its risks; and in its technical risks it is unique. For there is no other industry in which the process of manufacture requires the long exposure of delicate living materials to conditions whose influence on the volume and quality of the finished product is at once so incalculable and so decisive. It is true that in a large part of English farming the different weather demands of its various products greatly lessen the fluctuations in the aggregate physical output; but it still seems plain that these uncontrollable fluctuations in supply are far greater than those in any other industry. In 1913 the United Kingdom output of hops was 256,000 cwts.; in the following year a substantially similar acreage produced almost exactly double that amount. But unfortunately for the simplicity of the discussion, neither this illustration nor the many similar ones with which everyone is familiar, form a measure of the industry's technical risks. For the waste of productive effort in this industry is evidently due only in part to the incalculability attaching to its operations; it is also due to the immobility of its invested resources coupled with the *fact* of changing conditions. A substantial part of the loss is analogous to the waste

of productive capacity which accompanies the provision of regular liner services in response to variable conditions of demand in spite of the fact that those variations can be foreseen. If the weather conditions of each succeeding year were fully known by the farmer in advance of his annual investment, he would no doubt be able to adjust his resources more effectively than he actually does, but the physical product resulting from that investment would still be subject to considerable fluctuations from one year to another. In other words, the realised loss resulting from the technical risks of agriculture are not to be measured by a comparison between the actual and the average yield, or between the actual and the maximum recorded yield; it must be measured by the difference between the actual yield of any year and that yield which would have been obtained from a similar investment if the conditions had been fully known in advance.

The uncontrollable fluctuations in physical output which arise from technical risks, on their contact with demand generate commercial risks which are always apparent in fluctuations of farmers' gross incomes, and are sometimes apparent also in price uncertainties passed forward to succeeding industries, in particular the textile trades. It is evident that the disturbing effects on the stability of farmers' incomes of these fluctuations in the physical output of individual products are substantially reduced by the tendency for the variation in one product to be set off by an opposite variation in some other. It is evident, further, that these disturbing effects of fluctuations in the aggregate physical output, after contact with demand, might be completely extinguished by opposite fluctuations in price: for that would be the result if, for example, the aggregate demand for agricultural produce were perfectly stable and had an elasticity of unity. In fact, of course, that hypothetical condition of demand is far from reality. It may be suggested that the market conditions of English agricultural products should be represented by a set of (short-period) supply curves usually inelastic in form and subject to large vertical oscillations, coupled with a set of (short-period) demand curves which for the greater part of the produce are elastic in form and subject to large vertical movements. Inasmuch, therefore, as the instability of farmers' gross incomes originates not only in fluctuations in physical output, but also in oscillations of demand, it is not possible to isolate the effect of those fluctuations in generating price variations and commercial risks. But it is possible, by reference to the market

conditions of particular products, to show how far in fact the disturbing effect of fluctuations in physical output on the stability of farmers' incomes is neutralised by opposite movements in prices. This may be done by considering for the ten years 1904–13, and for the two products wheat and potatoes, fluctuations in annual yield per acre, average annual price per unit of produce, and annual money yield per acre. These are the results.

	Wheat.	*Potatoes.*
The mean annual deviation, from the ten-year average, of the output per acre .	5·7%	10·4%
The mean annual deviation, from the ten-year average, of the average price per unit of produce	5·9%	10·8%
The mean annual deviation, from the ten-year average, of the money yield per acre	6·9%	13·2%

These results are rather rough: as output is based on estimates, its fluctuations are presumably somewhat understated; as price changes are taken over a period in which their general level was rising, their magnitude is probably a little over-stated; and there are difficulties of interpretation. They appear to show that during the decade in question the influence of fluctuations in the physical output of wheat and potatoes in the generation of commercial risks was not neutralised by opposite price changes; and that farmers' gross incomes derived from these products were little more variable than they would have been if their prices had been stable at their average level throughout the period.

F. LAVINGTON

THE DEFERRED PAYMENTS SYSTEM IN THE UNITED STATES

In spite of the very wide extension which the system of paying for goods on the instalment plan has obtained during the last two years in America, there is surprisingly little information available on the subject. Some of the reasons for this will appear later.

The system of buying goods by an initial payment of a certain proportion of the total cost with the balance spread over several months by equal instalments, is not new. In America as in England the furniture trade and sellers of musical instruments have used the system for some time past. They have found it very remunerative. In the U.S.A. recent developments have been remarkable rather on account of the volume of credit involved, though the methods of financing the credit sales have also been novel. During the last two or three years the system has been introduced into almost every branch of retail business, with the consequence that sales have been actively stimulated. Public attention has been especially directed to the practice in connection with the purchase of motor-cars; the results of which have been reflected in the astonishing production figures achieved by this trade during 1924 and 1925. But it is scarcely an exaggeration to say that all articles except food, drink, light, water and heat can be bought by what are called deferred payments.

Since a great deal of the information, without which it would have been impossible to have written this article, was obtained from the General Motors Acceptance Corporation in New York, it may be best to begin with a description of the methods usually adopted to finance the sale of automobiles by dealers to users. The writer would like to express his gratitude for the generous way in which this organisation and all its accumulated experience and information were placed at his disposal by the Chairman of the Board and two of the Vice-Presidents.

The General Motors Acceptance Corporation is one of several similar concerns,[1] each directly affiliated with its own parent manufacturing company, engaged in financing the sales of the motors produced by its own group. The convenience of such an

[1] Where other concerns are involved, such connection is not necessarily exclusive or by Financial interdependence.

arrangement consists in the finance company undertaking all the credit-giving duties which the manufacturing concern would itself, in the normal course of events, have to assume and which in the past it has assumed. It is a common practice for these finance companies to extend credit to dealers in order to enable them to stock cars upon wholesale terms against a small initial payment with the balance payable at the date of sale or in any case within three to six months. It is unnecessary to examine this side of the activities of finance companies more closely; in such arrangements they have merely assumed duties which had always been undertaken by some body or other at one stage in the progress of an article from manufacture to final retail sale. The advantage to the manufacturing concern of receiving cash for its products instead of having to maintain dealers' credit accounts is obvious. In these cases the dealers, and not the manufacturers, directly or indirectly pay the financing charges.

The procedure adopted to finance a sale from the dealer to the user is for the former to secure from the prospective purchaser an application to pay on instalments, accompanied by a statement disclosing his financial position. The customer is required to include in this return all his assets and prospects, together with suitable credit references. If the statement is satisfactory and the sale takes place, the purchaser usually pays 25–30 per cent. of the value of the car in cash immediately, the balance being spread over twelve equal monthly instalments. The dealer, who in most cases acts only as an agent, retains a chattel mortgage on the car until all the payments have been made. The General Motors Acceptance Corporation is believed to be unique[1] in insisting upon the dealers of the General Motors Corporation acting as principals, thus retaining recourse against the assets of the latter in addition to recourse against the purchaser. This corporation, as do most similar concerns, institutes the legal proceedings in the event of default against the purchaser on behalf of the agent, to whom the latter is really liable. This does not indemnify the dealer where recourse against himself has been retained, but is done in order to unify legal proceedings and secure the best results. The practice in many cases is of assistance to the dealer by avoiding local or personal difficulties.

The terms upon which the purchaser pays for the goods includes, of course, the necessary expenses of financing, insuring the object against total loss until the payments have all been made, and other incidental safeguards, which vary considerably

[1] The practice is understood recently to have become more widespread.

with different corporations and methods. But behind all these accessory features the essential condition in the motor-car industry and in all other branches of the retail trade remains, that the object sold upon deferred payment becomes subject to a chattel mortgage, in addition to the legal recourse against the purchaser in respect of his other assets.

The purchase having been agreed to by the dealer, the purchaser's note which gives this recourse is sold by the dealer to a finance corporation at an agreed rate of discount. The practice of the large financing corporations associated with one make of car or one group of products, is to purchase only those dealers' notes which are drawn against the sales of the goods manufactured by the individual organisation. All the larger finance corporations, including those associated directly with certain products and therefore with the dealers in those products (who are often not permitted to sell other goods than those produced by the manufacturers for whom they are acting), reserve to themselves the right to refuse to purchase any sale note which they consider risky. There is usually no restriction against dealers then taking such sale notes elsewhere. Dealers' notes purchased are subject to full verification and investigation of the information disclosed concerning the buyer: in practice only a proportion of notes chosen arbitrarily among any one dealer's batch of paper is checked.

Large financing concerns, not associated with any particular manufacturing group, buy retailers' notes indiscriminately all over the country. These independent finance houses do not confine themselves by any means to any particular type of sale paper. They may finance the sales of pianos or cars or gas stoves. Moreover, in addition to the large companies, there are also innumerable smaller ones; in fact any person with a little capital to spare can and does place it at the disposal of retail dealers. Many retail dealers employ their own capital in this way. The operation is so remunerative that to-day a vast number of concerns and many private persons are involved. In one western city it was recently disclosed that there were no less than 111 registered companies engaged in this sort of financing, besides an unknown number of private persons. It is obvious that the uncertainty whether a large finance corporation will, in fact, purchase a particular sale note, in which the credit of the purchaser does not seem to be particularly good, will tend to induce a dealer to try to borrow the requisite capital from some friend who will not require meticulous safeguards, and whose refusal will not

compromise a good reputation with a big concern. Moreover, the lower overhead charges, and generally speaking the greater local knowledge of small local companies and private persons, inevitably combine to permit the latter to give to dealers, and them to purchasers, terms which large houses could not entertain. This competition is causing considerable anxiety to the large houses, not only on account of the loss of business involved, but because of the unsound terms which are believed to be accepted by the smaller companies and private capitalists. It is a matter of some importance to observe that although over 90 per cent. of the new automobiles dealt in during 1925 were sold against deferred payments, probably not more than a fifth of these were financed by large corporations in whose methods it is possible to repose real confidence.

On motor-cars it has hitherto been the general practice to pay the balance due after an initial cash payment in twelve equal monthly instalments. In California, however, where the proportion of passenger cars to inhabitants is as 1 : 3·4 compared with 1 : 7 over the country as a whole. it is difficult to sell a car except on eighteen months' credit. Various excuses for this have been advanced, but the truth probably is that the west is so near to-day's saturation point that such a stimulus is required to maintain sales at a profitable level. It is admitted that there is a general tendency to lengthen the term of credit. Quite recently it has been announced that payments spread over fourteen to sixteen months were becoming more and more frequent all over the U.S. Doubtless the considerations exposed above are contributing to this.

It is difficult to describe the articles sold on this system because, as has been stated, deferred payments are becoming usual in every branch of retail trade. In importance and value, however, motor-cars come first. And the automobile trade has become the largest industry in the U.S.A. The practice in this sphere is almost universal; it is used by rich and poor, and by town and country dwellers. As many of the expensive products of the General Motors Corporation as of their cheap cars are sold in this way. The refrigerating machines, electrical lighting sets and other goods of this group are also sold by instalments. The practice is widespread in respect of all labour-saving household utensils, such as vacuum cleaners, laundry washing machines, ice-boxes and ice-making plants for houses. The public utility companies have adopted the system for selling all equipment conducing to the use of more electric current or gas, such as

stoves, radiators, fans, cookers, heaters, etc. In this branch the administration and collection of the instalment payments is easy and the security is good, for the moneys due are collected on the accounts for current or gas, the supply of which can be cut off if a payment is in default. Jewellery, fur coats, ornaments, silver and plate, china and glass, furniture and antiques are some of the other most important articles affected. Nearly all musical instruments such as pianos, gramophones and wireless sets are sold in this way. Latterly, clothing for everyday wear has also been so purchased. A large store in the middle west, which recently announced the institution of the system with a great flourish of trumpets, simultaneously abolished open credit accounts, leaving its credit position legally better secured but virtually unchanged. The only branch of trade of any importance in which all forms of credit seem to have broken down in America is the liquor industry; in spite of the large numbers of persons and the great capital employed in this trade, transactions are always done for cash, paid in bank-notes. Even bank drafts and cheques are not countenanced.

The most important part of the problem is, of course, to estimate the volume of credit involved. Upon this point there is no published information. None of the accepted indices appear to reflect the whole situation. One of the more curious features of the economic position in America to-day is the comparatively small advance under the head "all other loans" of member banks compared with four years ago. After a slight decline in 1925 from the spring to midsummer, there was an advance from about 8,000 to about 8,500 million dollars up to the end of the year.[1] During the whole of 1924 the volume of "all other loans" remained in the neighbourhood of 8,000 millions, where it was in the autumn of 1923. But it is fairly generally accepted that the growth of deferred payments since 1923 has been very considerable. It would therefore appear that no bank credit has thereby been drawn upon. Nevertheless such is not quite the case, as may be seen from the methods by which money is found to finance deferred sales.

Corporations engaged in financing these sales have recourse, either to borrowing on lines of credit from their banks or to the public sale of Collateral Trust Certificates. The latter are sold principally to banking institutions of all descriptions. Now the former borrowing should be included in the figures of "all other

[1] The information upon which this article is compiled was collected in December 1925.

loans," while the existence of Collateral Trust Certificates would, in the case of banking institutions, presumably be reflected under the heading "other bills."

An explanation of the small net increase in "all other loans" during the last two and a half years is probably to be found in the practice, to which resort has been had by commercial corporations on a very considerable scale, of repaying indebtedness to their banks by the issue of long or short bonds or notes. There may have been a considerable decrease in "all other loans" on this account, though not greater than could have been more than made up by the ordinary commercial borrowing of industrial corporations in the course of such expansion of business as has occurred in America during the last twenty-four months. It is not clear what proportion of the new commercial borrowing which has turned a potential decline into an actual increase of about 500,000 dollars is attributable to normal commercial requirements, and how much is due to borrowing in order to finance deferred payments. Nor can a quantitative estimate be made. It is, however, also to be noted that much borrowing upon securities has been for commercial purposes.

Under the second category, where an expansion of credit might be expected to be reflected in published returns, namely, "other bills," there has been very little increase. It is generally assumed that the majority of the Collateral Trust Certificates sold by financing companies goes, not into the hands of the large member banks which make regular returns to the Federal Reserve System, but into the portfolios of smaller concerns, where the presence of this type of paper would pass unnoticed owing to their practice of making only semi-annual returns, which give very little detail. This is borne out by an investigation which was attempted last autumn, to establish the volume of "finance" paper as compared with "commercial" paper existing in the banking community generally all over the country. The investigation was not complete, but the results are believed not to have seemed very satisfactory. Certain revelations were made, disclosing a position in the Middle West where, in certain cases, some of the smaller banking institutions had as much as 75 per cent. of their earning assets in this category. The bearing which this has on the reported stringency in certain parts of the country is clear. Paper secured on deferred sales is not eligible for re-discount.

Thus both the systems of raising money adopted by finance corporations to carry on deferred sales may involve the creation of bank credit in forms which are hard to trace. In order to

form some estimate of the volume of credit involved, two lines of investigation were considered. A list was obtained of some twenty-seven finance companies principally in New York and in the east, representing large concerns carrying on, so far as is known, a respectable type of business. The aggregate nominal Preferred and Common Stock (with fixed par value) of these concerns amounted to between 80 and 90 million dollars; no account was taken of Common Stock of no par value, irrespective of the fact that some of the companies had issued such stock for cash. Investigations showed that respectable finance companies are generally in a position to borrow from their bank or sell Collateral Trust Certificates for a total amount of five times their monetary capital. Some of the smaller concerns may be obliged to work on a very much smaller ratio, but an average 5 to 1 seemed a fair figure. The twenty-seven companies, therefore, it was estimated could raise five hundred million dollars of credit. This figure for various reasons is unlikely to represent more than one-fifth of the amount of credit outstanding in respect of deferred payments, so that on this showing the credit involved seemed not less than 2,500 millions.

There was another method of attack. From published returns 4·3 million automobiles were sold in 1925, as to 90 per cent. on the instalment basis. Now if 700 dollars [1] is assumed as the average price of each car, an amount of some 2,700 million dollars is involved, of which 25 per cent. or some 675 million dollars was paid in cash, leaving 2,000 million dollars outstanding in respect of deferred payments extending over a period of twelve months. This figure corresponds fairly closely with the estimate of a responsible finance company that 1,800,000 dollars credit was outstanding in respect of cars bought but not wholly paid for. On a conservative basis it may be suggested that at least one thousand million dollars more credit is involved by deferred sales of other goods.

The totals thus very roughly estimated by these different methods, namely, 2,500 and 3,000 millions, are within measurable distance of one another. It has just been suggested that the calculable figure for credit extended by large corporations in respect of deferred sales, say 500 million dollars, did not represent more than one-fifth of the volume of credit involved in the country generally. One of the most interesting indications received concerned the proportion of cars sold to users on instal-

[1] The average price of all passenger cars sold in 1925 has lately been reported as $1,000.

ments financed by large corporations. It was surprising to learn that one very efficient organisation had not, in 1924, dealt with more than 20 per cent. of the cars manufactured by its own group. In 1925 the proportion was larger, though it is noteworthy that prior to this year the highest proportion had been reached in 1922, and that 1923 and 1924 showed a decline attributable to the inroads made upon this concern's business by the activities of small capitalists. If this corporation only dealt with a little more than one-fifth of the cars sold retail by its parent manufacturing company, it is legitimate to suppose that less than one-fifth of the cars sold by other large manufacturers on the instalment basis would be dealt with by large respectable finance corporations included in the list of twenty-seven names which were examined. The same considerations apply to other goods. An investigator must therefore be content to seek, in published returns, figures showing on an average not more than one-fifth of the amount of the volume of credit which he believed to be involved in the deferred payment system. Now if that one-fifth were to represent 500 to 800 million dollars, it is submitted that such an expansion of credit can be found in published returns of commercial bank loans and other paper mentioned before, even after all allowances have been made. But four-fifths will not be traceable unless a crisis were to occur, since it will be credit created by small banks and private persons drawing on their own credit on behalf of retailers.

It may be interesting to record certain figures received from one source for the first seven months of 1925. They showed that one corporation had purchased about 102,000 dealers' notes representing a face value of $54,774,000, with an average of $535,82 per note. The total cash price of cars sold under these transactions was $85,812,250, giving an average of $839.61 per car. The income of the purchasers of these cars was $288,204,905, giving an average of $2,819,87 per purchaser per annum. It follows, from the above, that the initial cash payments per car amounted to about $304. It was found in reviewing the figures that the margin between the purchaser's income and the price paid for the car was greater in the country districts than in the towns, and greater in the small towns than in the large ones. Nevertheless the average price of cars purchased in the country was smaller than those purchased in towns. These figures represent normal conditions, but are more favourable than a general average would be.

It has been almost impossible to ascertain the number of cars

which have been repossessed by finance companies as a consequence of default upon instalments. It is understood that hitherto very little loss had been involved, since the comparatively small number of cars so far repossessed have been successfully sold at second hand. It is clear, however, that the security of chattel mortgage is only satisfactory when the volume of repossessed cars is small. It is generally admitted that the volume of delinquencies increased in 1925.

The provision to finance corporations of commercial bank credits unsecured by tangible assets up to five or even six times the capital of the borrower needs no comment. The other method of obtaining funds by the sale of Collateral Trust Certificates has reached a high degree of perfection in the General Motors Acceptance Corporation, which with its twenty-four branches in the U.S.A. has built up an organisation comparable in miniature to the Federal Reserve System. In their practice when a batch of cars is sold on the deferred system and the dealers' notes are purchased by the financing organisation, they are handed over to a local trustee officer attached to the branch. The money required by the branch is then passed to its credit by the Central Office in New York and Collateral Trust Notes are marketed to an equivalent value through the corporation's note-selling organisation, which is similar to the marketing machinery of a great bond house. This selling organisation is kept separate from the dealers' note-purchasing department. The General Motors Acceptance Corporation Collateral Trust Notes have a currency of 30, 60 or 90 days according to the requirements of the purchaser and, generally speaking, for a face value to suit his convenience. The notes of this description issued by the various organisations which adopt this method of raising money have currency as finance paper discounted at rates varying with the market and the credit of the issuing house. The purchasers of these notes may be banks with which the issuing house has an account, or, again, institutions or private persons desiring to purchase finance bills as earning assets. This paper is, in practice, bought by some of the largest banking institutions in the country. As has been indicated, it is very popular with many middle western institutions. Quite recently the issue of long-term notes, secured as a floating charge on the whole of an institutions's portfolio of dealers' notes, was successfully made. More usually, however, the trust notes have a short maturity and are secured against dealers' notes of equal face value, but not against specific notes. Thus a credit crisis in any one part of America would not affect the security behind

any one batch of Collateral Trust Notes. In some cases dealers' notes are purchased directly by banks, the financing corporations acting only as an agency accepting this paper without recourse.

Conclusions regarding the effect of the widespread use of the deferred payment system upon the credit position of the community must to a great extent be vain until a more accurate estimate of the amount of credit involved has been made. Where deferred payments secured against specific goods on chattel mortgage have taken the place of open accounts, the security of the credit position has probably been substantially improved. Otherwise the risk attaching to the situation must be measured in terms which take into account the proportion which the deferred payments represent of the savings of the American people—that is, of the difference between the wages received and current expenditure.

The decline in savings bank figures can be offset by the undoubted increase of money invested in life insurance, for which premiums have augmented both in number and in volume even more remarkably than have time deposits in banks. The increase of life insurance may not mean, however, that the payment of instalments has been secured by a larger margin of savings than existed before the war; since if the average life policy-holder who has involved himself in too heavy deferred payments is faced with a crisis entailing a diminution of his spending power, he will probably default on his instalments before imperiling his life insurance. Although legal recourse may exist against all his assets, there is no doubt that the system of deferred payment as a whole must break down in the event of a widespread default upon instalments. Moreover, times likely to bring about such a development would probably also bring about a disappearance of the market in second-hand luxury or semi-luxury articles. The position of a time depositor in a bank, 75 per cent. of whose earning assets are invested in finance paper, the security of which becomes involved in the first gusts of a credit storm, would be scarcely more favourable. It seems clear that the extended use of deferred payment sales has compromised the purchasing power of the American public for some future period probably varying between six and twelve months. It has stimulated sales which might quite suddenly decline if the public were to find that it had purchased all its requirements to-day which in the ordinary course of events it would not have bought for a certain time. It may well be that the developments of the last two years mean t at a rather sudden rise has taken place in the standard of living

which would normally only have occurred during, say, the next two years. Having reached this standard and there being no immediate incentive to go further because the goal has been reached too soon, an arrest in deferred buying might occur with no more evil effects than those which would be bound to occur in any industry which might at the time be over-producing as a result of having counted upon a continuance of the present artificial rate of increase of sales stimulated by this new machinery. Such an industry may be the motor industry. But such an arrest might not mean any general crisis.

While the near future purchasing power of the American has been compromised by these anticipated purchases, whereby he has reached to-day a standard of living which normally he would not have reached until to-morrow, can it be said that the credit created by deferred sales is secured specifically upon that part of the purchasing power of the community which is surplus to the amount now required for necessities of life? Or, in other words, upon savings? While this may be so theoretically, if these savings are in a non-liquid form like life insurance premiums or investments in the stock market on a margin account, the security of the deferred sale transaction will nevertheless continue to rest solely upon the mortgaged chattel itself. This is a good cover when times are normal, but worthless in a crisis.

The conclusion seems to be that there is nothing inherent in the instalment purchasing system itself likely to cause a crisis. But if a credit crisis were to take place for some other reason the system would probably aggravate the situation.

The effects of a crisis involving the default of purchasers on the one hand, and on the other the sudden contraction of the business of the large finance corporations and the consequent effect of the disappearence of their Collateral Trust Notes from the money market, present two quite distinct problems, both well worth investigating but too long to discuss here.

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March, 1926.

A CONTRIBUTION TO THE THEORY OF CREDIT[1]

In his book *Banking Policy and the Price Level* Mr. D. H. Robertson has compressed into small space a great deal of hard thinking. With pain and grief I have, as I believe, succeeded in opening the oyster. Without personal help from Mr. Robertson himself I greatly doubt whether I could have done so. Therefore, since it may well be that others also are puzzled and have not the author at hand to guide them, I endeavour here, in respect to a portion of his work, to play Aaron to his Moses. The portion in question consists of Chapters V and VI, entitled respectively *The Kinds of Saving* and *Short Lacking in the Trade Cycle*, and the algebraic appendix to Chapter V. Here Mr. Robertson has accomplished a remarkable feat. In a region which many economists have explored he has discovered and attacked fundamental issues, the very existence of which has up to now been unperceived. He has done a thing much harder than answering questions: he has found the right questions to ask. By so doing he has broken a new path—added a new arm to the engine of economic analysis. In what follows I shall set out his results in a simplified manner under the headings, The First Problem, The Second Problem and The Third Problem. To facilitate exposition—no difference is made to the substance of the argument—I shall follow Mr. Robertson in assuming that money consists, and bank loans are made, exclusively in the form of inconvertible paper notes—whether actually handed over the banks' counters or held by the banks on behalf of customers as deposits. The first problem must, because of its nature, occupy the largest space in my discussion, but the other two, more especially the third, overshadow it in practical importance.

The First Problem

§ 1. If the money income of a country be represented by £2,400 million and if, during a year, the government or the banks create and spend £200 millions of new money, it is customary to say—indirect reactions being ignored—that, by this process, they make a levy on the public in terms of real income (goods

[1] *Banking Policy and the Price Level*, by D. H. Robertson (P. S. King, pp. 103).

and services) equal to $\frac{200}{2400 + 200}$, *i.e.*, $\frac{1}{13}$th of the total real income of the year: this levy being handed on by the banks to those persons to whom the £200 millions of new money has been loaned. Mr. Robertson has pointed out that in this statement it is tacitly assumed that the price level is altered in proportion to the addition made to the *stream* of money becoming money income during the year; that, according to generally accepted monetary theory, this level ought to be altered in proportion to the addition made to the *stock* of money; and that, as a matter of fact, the stream of money becoming income during a year is not equal to the stock of money. The question how large a real levy the banks will achieve—it being assumed that the real income of the country is not altered by their action—through the creation and spending of £200 millions of new money calls, therefore, for a more thorough investigation than has hitherto been given to it.

§ 2. The solution which suggests itself most naturally is that we should take as a fundamental unit of time the period during which money on the average circulates once, that is a period of such length that, during the course of it, the stream of money becoming income[1] is equal to the stock of money. If the money income of the country is £2,400 millions and the stock £1,200 millions, this period will, of course, be six months. If then we conceive so many units of new money created by the banks during a circulating period, and if we suppose that this new money circulates with the same rapidity as the money already existing, the proportional additions made to the stream of money and the stock of money respectively will be equal. Thus in the first six months of our year £100 millions will be added to £1,200 millions, raising both stream and stock to £1,300 millions. The price level will rise to $\frac{13}{12}$ of what it was before, and the new money created and spent by the banks will bring in to them $\frac{1}{13}$th part of the real income of goods and services accruing to the community in six months. In the second six months £100 millions will be added to a stream and stock which now stands at £1,300 millions. The price level will become $\frac{14}{13}$th of what it was origin-

[1] It should be noted that the length of the circulating period as here defined is not the inverse of the velocity of monetary circulation as defined by Professor Irving Fisher: for that measures, not the frequency with which a representative unit of money becomes income, but the frequency with which it changes hands against commodities, during a year.

ally, and the banks will secure a real levy consisting of $\frac{1}{14}$th part of six months' real income. Thus over the year the real levy made on the public will be $\frac{1}{2}\left\{\frac{1}{13} + \frac{1}{14}\right\}$ times the aggregate real income of the year.

§ 3. If, for simplicity, we suppose the period during which the banks go on (at a constant rate) creating new money is n times as long as the period of circulation of money, *and that n is a whole number*, these results can be generalised.

For this purpose I shall employ a notation and a line of argument different from and simpler than Mr. Robertson's: but in substance the analysis is the same.

Let M be the stock of money initially.

Let R be the real income of the country per circulating period.

Let Y be the total amount of new money created.

Let n be the number of circulating periods during which it is being created (at an even rate throughout): n being a whole number.

Let P be the price level initially.

Let $P_1, P_2 \ldots P_n$ be the price levels in each of the n successive circulating periods.

Let $L_1, L_2 \ldots L_n$ be the real levies obtained by the banks' customers in each of these periods by expending their new money.

Then we have (from the general theory of money) $P = \frac{M}{R}$.

$$P_1 = \frac{M + \frac{Y}{n}}{M}P = \frac{M + \frac{Y}{n}}{R}$$

$$P_2 = \frac{M + 2\frac{Y}{n}}{M}P = \frac{M + 2\frac{Y}{n}}{R}$$

$$L_1 = \frac{Y}{n} \div P_1 = R\frac{\frac{Y}{n}}{M + \frac{Y}{n}} = R\frac{Y}{nM + Y}$$

$$L_2 = \frac{Y}{n} \div P_2 = R\frac{\frac{Y}{n}}{M + 2\frac{Y}{n}} = R\frac{Y}{nM + 2Y}$$

Hence the aggregate real levy made by the banks

$$= \Sigma^n L = R\left\{\frac{Y}{nM + Y} + \frac{Y}{nM + 2Y} + \ldots \text{ to } n \text{ terms}\right\}$$

$$= R\left\{\frac{1}{n\frac{M}{Y} + 1} + \frac{1}{n\frac{M}{Y} + 2} + \ldots \text{ to } n \text{ terms}\right\}$$

§ 4. From this formula, it may be observed in passing, two interesting propositions can be derived.

The first of these concerns the relation between the size of the real levy which the banks collect and the length of time over which the collection of the new money Y is spread. It can be proved that, when R, M, Y and the length of the monetary circulating period are given,

$$R\left\{\frac{1}{n\frac{M}{Y} + 1} + \frac{1}{n\frac{M}{Y} + 2} + \ldots \text{ to } n \text{ terms}\right\}$$

is larger the larger is n.[1] Hence, other things being equal, the amount of the real levy collected by the banks is larger the larger is n, the longer, that is to say, is the period over which the collection is spread. In general, however, the difference made to the amount of the levy even by considerable changes in the period of collection will be small.

The second proposition concerns the relation between the size of the real levy and the length of the monetary circulating period. In this case M and Y are again given, but any change in n must be taken to imply an inverse proportional change in R. Therefore, T being a constant, we write:

$$\Sigma^n L = \frac{T}{n}\left\{\frac{1}{n\frac{M}{Y} + 1} + \frac{1}{n\frac{M}{Y} + 2} + \ldots \text{ to } n \text{ terms}\right\}$$

It can be proved that this sum is *smaller* the larger is n. Hence, other things being equal, the amount of real levy collected by the banks through the creation of a given quantity of new money spread over a given period of time is smaller the longer is the normal period of monetary circulation.

§ 5. Hitherto it has been assumed that n is a whole number. When n is not a whole number, provision has to be made for the loose end by which it hangs beyond a whole number, or,

[1] A proof of this proposition, mathematically difficult and unsuitable for reproduction here, was kindly constructed for me, after my own efforts had failed, by Mr. Ramsey of King's College.

should it be less than 1, beyond 0. Since in our formulæ we have implied that, when the creation of new money is spread over a complete circulating period, the price level relevant to the *whole* of that period is the same, namely a level adjusted to the addition that will have been made to the stock of money at the end of the period, we are bound also to take that view as regards new creations of money which cover only a part of a circulating period. To do anything else would involve the paradoxical thesis that the price level in one month is affected by an event—not necessarily foreseen—namely the cessation of new money creations, which takes place in a *subsequent* month. Thus in a part-period the price level must be taken as equal to what it would have been during the whole period had the creation of new money continued at the same rate throughout the period; and the levy made through it will be equal to what, at that price level, the new money actually created is able to purchase. This conclusion stands on all fours with, and depends on, the same hypotheses—to be discussed immediately—as are required to sustain our main formula. For the remainder of this study, however, I shall, for simplicity of exposition, ignore these loose ends.

§ 6. Apart from this matter, the general method of attack that has been outlined seems satisfactory so long as we are considering each period of circulation as a whole without analysing it into parts. So soon, however, as we do that, a serious difficulty emerges: because in any part of a circulating period the money stream is necessarily smaller than the money stock. Thus, let us suppose, as before, that the period of circulation is six months and that £200 millions are being created at a constant rate over a year. As before let the money income of the year be £2,400 million and the money stock £1,200 million. Then in the first month of the first circulating period, £$\frac{200}{12}$ millions of new money are created. This increases the money stream of that month in the proportion

$$\left[\left\{\frac{200}{12}+200\right\}\div 200\right]=\frac{13}{12}.$$

But it increases the money stock in a different proportion, namely

$$\left[\left\{\frac{200}{12}+1200\right\}\div 1200\right]=\frac{73}{72}.$$

It follows that, if, as in the preceding solution we supposed, the price level is to be raised throughout this first circulating period

in the proportion $\frac{13}{12}$, during the first month of that period it must be raised much more than in proportion to the addition which during that month has been made to the money stock: and the same thing is true of all the other months except the last. Mr. Robertson has, I think for the first time, called attention to this difficulty.

§ 7. The way in which he attempts to meet it is as follows. He conceives each circulating period to be divided into a number of small atomic intervals, finite but indivisible, which he calls days. Let there be k such intervals within a circulating period. Mr. Robertson assumes that the whole of the money newly created in an interval is expended once during that interval, and that, as has been happening hitherto, $\frac{M}{k}$ parts of the previously existing stock of money is expended once. Let us write $\frac{Y}{n}$ in our notation (namely the amount of new money created in a circulating period) $= X$: so that the new money created during an interval $= \frac{X}{k}$. The money stream in the first interval becomes then $\frac{M + X}{k}$ instead of $\frac{M}{k}$, and the price level rises in the proportion $\frac{M + X}{M}$. This implies that the new money created by the banks is circulating more rapidly than the existing stock of money; in other words, that the circulating period of a representative unit of money is shortened. The previous length of circulating period was, however, calculated so as to enable the public to hold in the form of money stocks a given real value R, namely the real income accruing during the number of days that a representative circulating period has hitherto occupied: and nothing has happened to make the public wish to hold a different aggregate real value in the form of money stocks. Therefore, they will immediately take steps to cancel the shortening which has taken place in the circulating period of the representative unit of money, by cutting down the proportion of the original stock of money that is allowed to appear in the stream. Mr. Robertson assumes that, to this end, they succeed during the second interval in holding back from circulation an amount of the original stock of money equal to the amount that has been added to the stock in the first interval, so that the stream in the second interval, as augmented by the new money created then, is equal to the stream in the first interval: and so on throughout the

course of any one circulating period. If these assumptions are made, we are able to hold without paradox that, throughout each circulating period, the price level is uniform, in spite of the fact that the stock of money is continuously increasing: and the formula set out in § 3 can be successfully defended.

§ 8. When this very ingenious analysis is studied carefully it will be noticed that the assumption upon which Mr. Robertson's procedure depends involves two propositions: (1) the general proposition that, when, through the action of the banks, the real value of the aggregate money stock is diminished, the public endeavour to restore this real value to what it was before; and (2) the more special proposition that they achieve their end *at a particular rate of speed*. With the first of these two propositions everybody will agree. The second, however, is more difficult. The matter may be put in another way thus. If a given sum of new money is created in, say, a week, the "proper" response—the response that, given the habits of the people, must ultimately be made—is an increase of the price level by a fraction equal to the sum of new money divided by this sum *plus the former stock of money*. But, since adjustment to the new conditions can hardly be instantaneous, the immediate response is likely to be an increase by a fraction somewhere between this and the fraction yielded when the sum of new money is divided by this sum *plus* the *stream of money* which formerly flowed into income per week. In order to make this "somewhere between" definite for all relevant conditions, Mr. Robertson has to assume a particular law as to the speed with which the public reacts to protect the real value of its money stock against depletion. It is not possible, and he does not profess, to establish this law by evidence. It is admittedly an assumption, adopted because *some* assumption *must* be made, because it is *primâ facie* not unplausible, and because it enables a simple and manageable formula—that set out in § 3—for determining the real effect of new money creations to be deduced. There is, of course, nothing illegitimate about this procedure. In the circumstances no other procedure is available. It is, however, as I think, important to supplement Mr. Robertson's analysis by some estimate of the amount of error to which his results are subject on account of the unavoidable insecurity of their foundations. Thus, for the first circulating period, his hypothesis yields an estimate of the real levy due to the creation of X units of new money, represented in our notation by $\frac{X}{M+X}R$. It is required to determine what

are the maximum and minimum estimates that *any* plausible hypothesis would yield. I assume, for the purposes of the argument, that the speed of the public reaction is independent of the amount of new money that is created.

§ 9. Mr. Robertson postulates that the reaction of the public takes place at a certain speed. It is open to us to suppose that it takes place more rapidly than this, thus causing the price level in the earlier parts of a monetary circulating period (during which inflation is taking place) to be more nearly adapted than his formula indicates to the stock of money. In his language, the public, instead of withdrawing from expenditure in the second atomic interval an amount of money equal to the amount that the banks created in the preceding interval, may withdraw rather more than this. The limit of what is possible in this direction is reached if we suppose the public to react instantaneously, so that the price level in each atomic interval is adjusted to the stock of money in that interval, the newly created money being made *instantly* to circulate at the same pace as previously existing money. Let P_1', P_1'' . . . be the price levels in each of the k successive intervals of the first circulating period, and let L_1', L_1'' . . . be the corresponding real levies. Then, with our previous notation,

$$P_1' = \frac{M + \frac{X}{k}}{M}P = \frac{M + \frac{X}{k}}{R}$$

$$P_1'' = \frac{M + 2\frac{X}{k}}{M}P = \frac{M + 2\frac{X}{k}}{R}$$

$$L_1' = R\frac{X}{kM + X}$$

$$L_1'' = R\frac{X}{kM + 2X}$$

Hence the aggregate real levy made by the banks in the first circulating period

$$= \Sigma L_1' = R\left\{\frac{X}{kM + X} + \frac{X}{kM + 2X} \text{ . . . to } k \text{ terms}\right\}$$

It is easy to see that, whatever the value of k, each successive term inside the bracket in this expression is less than the preceding term. It follows that

$$\Sigma L_1' < R\frac{X}{M + \frac{X}{k}}$$

As k becomes indefinitely large, this last expression approximates to $R\frac{X}{M}$.

$$\therefore \quad \Sigma L_1' < R\frac{X}{M}$$

That is to say, the maximum estimate of the real levy which can be reached on any possible hypothesis is $R\frac{X}{M}$.

§ 10. To arrive at a corresponding minimum estimate is less easy. The logical antithesis to instantaneous reaction is infinitely slow reaction (*i.e.*, no reaction at all); but to postulate this is plainly ridiculous and would lead to ridiculous results. We have, therefore, in this direction to look, not for the most extreme hypothesis which can be conceived, but for the most extreme which can sensibly be entertained. I suggest that the minimum speed of reaction which it is sensible to postulate is one conforming to the condition that the money created and spent in one atomic interval shall in the next atomic interval circulate at the same speed as the previously existing stock of money; in other words, that new money after its first spending shall be assimilated to the previously existing mass of money. It is easy to see that the estimate for the real levy accomplished in the first circulating period conforming to this hypothesis is

$$\Sigma L_1' = R\left\{\frac{X}{kM+kX} + \frac{X}{kM+kX+X} + \frac{X}{kM+kX+2X} \ldots \text{to } k \text{ terms}\right\}$$

This is obviously $> R\frac{X}{M+2X}$

That is to say, the minimum estimate of the real levy which can be reached on any sensible hypothesis is $R\frac{X}{M+2X}$.

§ 11. Thus the estimate yielded by Mr. Robertson's formula $R\frac{X}{M+X}$ lies between these two extremes. If we write T to represent the true estimate, it lies between $\frac{M}{M+X}T$ and $\frac{M+2X}{M+X}T$. It follows that, so long as the amount of new money created during a circulating period is small relatively to the total stock of money, or, what comes to the same thing, so long as the new money created during a year is small relatively to the normal annual money income, Mr. Robertson's formula cannot err from the truth by more than a small percentage. For example, if we

suppose our national stock of money to be £1,200 millions and the monetary circulating period six months, his estimate of the real levy that would result from creating £100 millions of new money during six months can neither fall short of nor exceed the truth by more than $7\frac{9}{13}$%. The range of *probable* error is, of course, substantially smaller. Similar reasoning is easily extended to other circulating periods beyond the first.

§ 12. One further point still remains to notice. None of the formulæ referred to above purports to measure the real levies made by the banks through the creation of new money except on the assumption that no indirect effects are produced upon (1) productivity and (2) the proportion of their real income that people choose to hold in money form. If, as an indirect effect of the creation of new money, productivity is stimulated and real income increased by any given percentage, the price level will fall to a corresponding extent, and the real levy made by the banks will exceed the figure given by the formulæ in a proportion equal to that in which the new productivity stands to the old. If, on the other hand, the creation of new money is carried so far that people fear a continuing expansion in the quantity of money and so a continuing depreciation in its real value per unit, they will endeavour to "fly from money," reducing the aggregate of real value which they hold in money form. This will involve a rise in the price level: and the real levy accomplished by the banks will fall short of the figure given by the formulæ in the proportion in which the price level has been forced up. This latter case is excellently illustrated by the course of the post-war inflation in Germany, Austria and elsewhere.

The Second Problem

§ 13. The second problem is to determine in what sense and how far the real levy made by the banks from the public by the creation of new money can properly be spoken of as a *forced* levy. In all circumstances it is a forced levy in the sense that the banks by forcible action obtain real resources which would not have accrued to them had they been quiescent. But from the point of view of the public from whom the levy has been made, we can hardly call the levy "forced" if the conditions are such that, had the banks done nothing, the public would have intended to do without (to "lack," in Mr. Robertson's phrase) a quantity of resources equal to the quantity which the banks do in fact raise from them. Money hoarding is peculiar in this respect. When a single person decides, for any reason, to add to the real value

of his money hoard, he can only achieve his purpose by doing without a quantity of real things and accepting instead of them an equivalent quantity of money. Naturally, therefore, when the community as a whole decides to do this, all its members imagine that, to achieve their end, they must collectively do without a proportionate quantity of real things: though, in fact, of course, what each one loses through his own action he gains through the action of other people, so that the community as a whole does without nothing. Hence, if the public decide to raise the real value of their aggregate money stocks to a higher proportion of their real income, so that it shall stand above its old level by 10 million bushels of wheat, they will imagine that they must, and they will *intend to*, do without 10 million bushels of wheat. Suppose that, when the public are acting in this way, the banks, by creating new money, make a levy on them of 10 million bushels. The public are, indeed, worse off by 10 million bushels than they would in fact have been had the banks been quiescent, but they are no worse off than they had intended to be. The banks have merely enabled them to realise their intentions. Had the banks done nothing, the public, seeking to increase the real value of their money hoards in the proportion of, say, $\frac{120}{100}$ would have caused the price level to fall in the proportion $\frac{100}{120}$. The banks, by creating new money equal to 20% of the existing money, prevent the price level from falling and make a real levy exactly equal in amount to what the public had *intended* to do without; the public at the same time carrying out their purpose of increasing the real value of their money stock in the desired proportions. The banks' levy can hardly, in these conditions, be spoken of as "forced" without qualification. Perhaps we might speak of it as a *forced uncontested levy* and of bankers' levies made in all other conditions as *forced contested levies*.[1]

The Third Problem

§ 14. Mr. Robertson's third problem is concerned with the relation between the levies made by the banks, the price level

[1] When productivity per head increases, the real value of the money stock is raised automatically without any intended "lacking"—Mr. Robertson's word—on the part of the public in a proportion equal to that in which productivity has risen. Therefore there is no uncontested element in levies made at such times. It should be added that within forced contested levies, as I name them, Mr. Robertson further distinguishes, with acknowledgments to Mr. Keynes—to whom he also makes acknowledgments of a more general sort—between two sub-groups.

and the progress of productivity. In general, when the banks create new money, they hand it over to business men to enable them to purchase (or hold) circulating capital. In other words, they hand over to business men for the conduct of their industry the levies they have secured from the public. Presumably, as a result of this, additional production is undertaken, and presently yields additional real income. *Let us suppose that additional circulating capital is only obtainable by business men through the creation on their behalf of new money by the banks.* In accordance with our previous analysis, it is necessary, in order that the price level may remain steady, that the real income (output) of the community shall increase in each monetary circulating period in the same proportion as the aggregate stock of money. Hence in order that (1) the price level, (2) the rate at which the banks provide industrialists with new circulating capital and (3) the rate at which productivity (or real income) increases, shall all remain constant, circulating capital must reproduce itself on the average in a period equal to the period of monetary circulation. If circulating capital reproduces itself in a period shorter than the period of monetary circulation, steady prices will mean an increasing rate of growth in productivity: if it reproduces itself in a period longer than the period of monetary circulation, they will mean a diminishing rate of growth in productivity.

§ 15. This analysis leads in Mr. Robertson's hands to an important practical conclusion. He holds (p. 72) that, as business is actually organised in England, sudden additions to the supply of circulating capital to industry can in fact only be obtained through the creation of new money by the banks. He holds further (p. 58) that, as a matter of fact, circulating capital on the average takes a longer time to reproduce itself than the six months which he estimates as the period of monetary circulation. It follows that on those occasions when an expansion of industry is warranted by a real cause (*e.g.*, a good harvest or enhanced foreign demand), unless the banks allow the price level to rise, they will prevent an "economically justifiable" expansion of industry from coming about. Mr. Robertson concludes therefore that they ought not to aim at complete stability in the price level. They ought rather to acquiesce in such primary price movements as are bound up in the way just described with "economically justifiable" expansions in industrial activity, but to inhibit secondary movements which threaten to carry industrial expansion further (p. 81). This practical conclusion is not, as Mr. Robertson himself recognises, a *necessary* corollary to his analysis. For it

may be held that, by means of appropriate changes in rates of discount, the circulating capital required by industry in times of economically justifiable expansion *can* be secured by industry, through the banks from the public, without new money creations of a sort to raise prices and involve forced contested levies. The issue here is evidently a very important one. Mr. Robertson does not, however, debate it in detail, and this paper is already overlong.

A. C. PIGOU

REVIEWS

Has Poverty Diminished? By A. L. BOWLEY, Sc.D., and M. H. HOGG, M.A. (London: P. S. King. 1925. Pp. 238. 10*s*. 6*d*.)

STUDENTS of social reform will remember the publication, in 1915, under the auspices of the University of London, of a book entitled *Livelihood and Poverty*, which contained the results of an investigation, conducted mainly in 1913, into the economic conditions of working-class households in certain urban districts. Dr. Bowley and Miss Hogg are to be congratulated on the service they have rendered in producing a post-war sequel to that volume, in which they chronicle the results of an investigation undertaken about ten years later, and as far as possible following the same methods. The ground covered is likewise the same. The towns with which they deal in *Has Poverty Diminished?*, namely, Northampton, Warrington, Reading, Bolton and Stanley, are those which were included in the volume concerned with pre-war data, and thus the authors reach a basis of comparison whereby the effect of the past ten years on working-class conditions can be gauged with some degree of accuracy.

Dr. Bowley and Miss Hogg would be the last to over-estimate the importance of the results here set forth. Not all the households in the above towns were investigated, but samples were taken, the size of sample aimed at being 800 to 1200 working-class households for each town. Thus the ratio of the households examined varied with the size of the town, and was expected to comprise about 1200 addresses, of which perhaps 200 were excluded as non-working class. In Northampton, for example, the ratio was one household in seventeen on the register; in Bolton, one in thirty-six; in Stanley, one in eight. It is obvious that samples so small as these, while fairly reliable as regards the broad facts, are apt to be misleading if each of them is split up into smaller groups for the purpose of examining some particular factor in the situation, and I am inclined to think that the authors may sometimes have made deductions hardly warranted by the narrow basis which such subdivisions afford. But though I may suggest that doubt, and though certain of the methods of investigation employed are perhaps open to criticism, especially in

arriving at the precise figure of the main breadwinner's wages, there is no doubt that this book represents a real and valuable contribution to our knowledge of "the state of the people."

Let us look at some of the results obtained and some of the conclusions to which we are led.

The first broad fact emerging is a decline in poverty, over the past ten years, in four of the five towns investigated, the exception being Stanley. In the authors' own words (p. 20):

"The causes of poverty may be considered in two groups: (1) the broken families in which the father or husband is dead or not able to earn, and (2) those in which he is normally at work but at insufficient wages. The former group depends on earnings of women or children (young or adult), on pensions, savings or property, or on some form of charity. The relative number of such families has changed little, in spite of a certain proportion of war widows included." In this group "the situation is better than it was in 1913; such households, without sufficient means to reach the standard unless with the help of Poor Relief or charity, amount to only 2½ per cent. of all working-class households; in a town of 100,000 persons there are about 350 such cases. The number in all the towns together is about half that in 1913; in other words, the extent of the problem relating to such families has been halved in eleven years.

"The reduction has been even greater in the group which are in poverty because the natural supporter of the family earns insufficient wages at regular work. There is no doubt that the weekly wages of unskilled men have approximately doubled in ten years, while the cost of the minimum standard had risen, in the summer of 1924, by about 70 per cent."

Moreover: "While wages have risen towards meeting needs, these needs themselves have fallen towards meeting wages, with the reduction in the number of children. The proportion of families in which a man is normally earning found to be in poverty was in 1924 only one-fifth of the proportion in 1913, if full employment is assumed; while if the maximum effect of unemployment is reckoned, it is little over one-half" (p. 21).

The authors proceed to give a rough estimate of the proportions of this reduction due respectively to higher wages and to decrease in the number of children; and their conclusion is that "in the aggregate of the towns the improvement due to increased wages is about twice the improvement due to diminished needs."

Of course the incidence and character of the improvement vary in the four towns in which improvement has taken place.

The fifth town, Stanley, presents an unhappy contrast. There, in 1913, "only 6 per cent. of all families, normal and broken together, were in poverty. By 1923 the number of children per family was fewer, but . . . the average family was still markedly greater than in the other towns." This would have mattered little if wages had kept pace with prices, but miners' earnings in all districts fell very sharply from the boom of 1920, while in July 1924 unemployment so increased there (as in other coal-fields depending wholly or in part on exportation) that one week in eight was generally lost. In Stanley, through these various causes, the proportion of households in poverty has increased in the last decade. "The general reduction of poverty evidenced in the industrial towns has not taken place in the coal districts . . . and a special investigation would be necessary to judge their position" (p. 23).

Still, in all the towns except Stanley "the improvement since 1913 is very striking. Even on the assumption that all the families suffering from unemployment in a particular week had no adequate reserves and that their unemployment was chronic, the proportion in poverty in 1924 was little more than half that in 1913."

We must not, however, turn away from this statement merely with a sigh of relief. It must be remembered that the standard of living below which a household is here assumed to be in poverty is a very inadequate standard from a human point of view. Even its physical sufficiency can only be guaranteed by the deliberate sacrifice of many legitimate desires. Much depends on the housewife, who needs energy, foresight and practical wisdom to an almost superhuman extent. "The minimum standard allows nothing for trade union or society subscriptions, train fares, amusement, beer, tobacco, newspapers or betting" (p. 16). But how many families would sacrifice a daily paper to a few additional but invisible calories? As for trade union subscriptions, it would be easy to argue that if they were unpaid the calories would suffer in the long run.

Again, as the authors point out, it is assumed in the calculations that the incomes of all the family are pooled, but, in point of fact, the elder children who are living at home and earning only make certain fixed payments, which are not infrequently inadequate.

But the unsatisfactory state of things which still exists is perhaps brought home most clearly by a reference to the children, on whom, in 1912–14, the incidence of poverty was especially severe. At that time more than one in five children under fourteen

were living in households that were below the poverty line. In Reading the proportion was 46 per cent. In 1923–4 the proportion was 1 in 16 in the aggregate of the towns, and 1 in 7 in Reading. The improvement is great, but not great enough.

"The number of children still being brought up in households where the necessities and ordinary amenities of life cannot be adequately obtained, except by external help, is by no means unimportant or negligible, and all methods of improving their position ought to be very carefully studied. It should be remembered that our investigation gives only an instantaneous picture. If the view could be extended over several years, we should find families passing first below and then above the poverty line, as the third or fourth child was born, and as the children reached the age of earning. More than 1 in 6 are in present circumstances below the line at some period of their young lives, a smaller proportion are below it for many years consecutively" (pp. 24–5).

Such figures are sufficiently disquieting, especially when we bear in mind the abnormal extent to which at present family incomes are raised above the poverty line through pensions. The authors tell us:

"In addition to the increased proportion of old age pensioners, which corresponds to the increased proportion of old people in the population, there are many war pensions (for widows, children and disability), some National Health Insurance pensions, and a considerable number of superannuation pensions. In Reading, one household out of four in our sample was found to be in receipt of a pension or of unemployment benefit" (p. 26).

The tendency of these factors in the family income is to "reduce the effective number of persons dependent on wage-earners, to leave unmarried wage-earners with only themselves to support, and to limit the responsibility of married men to that for their wives and children" (p. 26).

We must not forget, however, that any alleviation of poverty represented by war pensions must before long lapse automatically, and the only sound substitute for such extraneous relief is greater and more widespread earning power among the workers.

To turn to another aspect of the inquiry—it is curious that the present housing conditions, while they aggravate the situation profoundly from almost every standpoint, do in a sense ease it from the standpoint of the actual income received by the household, since on the average, and in spite of all exploitation, whether by landlords or tenants, of the crying need for accommodation, rent absorbs a smaller proportion of that income than it did

before the war. This, at all events, is the case in the towns here investigated, and I believe that to some extent they may be regarded as typical.

"The great bulk of the population under consideration," say the authors (p. 6), "has benefited by the Rent Restriction Acts, and rent (including rates) has generally risen by rather less than 50 per cent. . . . Wages, especially in the lower grades, have increased much more.

"There can be no doubt that a considerable proportion of the working class, both unskilled workers with very small families and skilled workers not employed in one of the depressed industries, could afford a higher rent. . . . It is suggested that housing authorities are too timid to venture, and working-class families too unwilling to devote an adequate part of their income to house accommodation. The traditional proportion, 1 in 6, of rent to working-class income, is much higher than is now the fact" (p. 7).

Meanwhile, in such a town as Stanley, which even in 1913 was deplorably overcrowded, things are drifting from bad to worse. In Warrington also (where the investigators found 48 families with an income of £8 and a rent of less than 8*s*.) "building has not kept pace with the increment of the population." But the writers add that such "an inquiry by sample cannot take the place of a more intensive investigation in respect of the physical condition of the houses and of the worse cases of overcrowding. It can only bring out the broad numerical framework of the situation" (p. 6).

My own impression, gathered from towns with which I am familiar, is that the onus of responsibility for overcrowding rests upon the housing authorities rather than upon the workers, who patiently put their names upon a waiting list year after year, and perhaps wait five years before getting their chance of a home. Moreover, I am inclined to think that the rents of new houses, and even pre-war houses, though they may not have risen proportionately with certain other items, in many towns absorb a larger proportion of the family income than is the case in the towns here investigated.

The conclusions left in one's mind after reading this book is that the broad results of the inquiry are encouraging.

In 1900, when I made an inquiry into poverty in York, which I believed was a very typical provincial town from the standpoint of economic welfare, I arrived at the conclusion that 15·6 per cent. of the working class were in primary poverty. In 1913, adopting a rather less stringent poverty line than I did, Dr. Bowley and

Dr. Hirst estimated that the percentage of primary poverty in the towns they investigated was 11. In 1924, in spite of exceptional unemployment, Dr. Bowley and Miss Hogg estimate it at 6·5 per cent.

These figures indicate that as a country we are passing from the state when industry is unable to provide the bare necessaries of physical efficiency, and that when trade becomes normally prosperous, very few persons engaged in it will be in primary poverty. In future the problem will be to leave the poverty line further and further behind, and to furnish a steadily improving standard of life to the workers.

B. SEEBOHM ROWNTREE

Capitalist Enterprise and Social Progress. By MAURICE HERBERT DOBB. (London : Geo. Routledge & Sons. 1925. Pp. x + 410.)

IF economists ever indulge in moments of self-questioning, they must often ask themselves, What is the relation between the refined analysis, the elaborately qualified conclusions of pure theory, and the rough, complex affairs of the market-place, which immediately concern the business man or the politician? This difficulty has troubled Mr. Dobb. We seem to him to draw our assumptions from a state of classless individualism, and then apply them without further consideration to existing conditions. We hide conveniently under "economic friction" the most characteristic feature of capitalist undertaking. In our exposition of pure theory we imply ethical judgments, not realising that, in the guidance of practical policy, differences of a most essential kind may be made by what in pure theory might be lightly regarded as mere differences of emphasis. Mr. Dobb feels that some conscious effort must be made to bridge the gulf between the conclusions of pure theory and the actual world. In particular, he feels the need for constructing theories of (1) Capitalist undertaking, and (2) the Entrepreneur Function—theories really suited to the phenomena they seek to analyse. The absence of a sound theory of enterprise has allowed the protagonists on the political stage to fill its place with motley, ill-fashioned conceptions of their own; and the responsibility of the economist in the future seems to lie in reducing this strange collection to some common measure and in civilising the Babel by giving to it at least a common tongue.

In the presentation of his problem, Mr. Dobb leaves little to

be desired. Unfortunately, he fails to help us to a solution. His chief task is never tackled. "Any economic society," he tells us, "will require two main functions, which the composite term Entrepreneur Function seems to describe, (1) the need (*a*) so to preserve the balance between producing groups that, in general, the marginal utility of the supply covers its marginal cost; and (*b*) so to regulate the distribution of economic resources between alternative uses that the marginal yield in all uses is approximately equal. (2) The need to promote such changes in the conditions of supply and technique as to increase the yield of human effort as much as possible, the grouping of resources being speedily and appropriately adapted to such changes in conformity with (1 *a*) and (1 *b*)." This is admirable. But we learn little more. Mr. Dobb makes no attempt to construct a theory of the Entrepreneur Function. Instead, we are treated to an analysis of Capitalist undertaking, an examination of various profit theories, and an account of the influence of institutions on the rise of the existing system. Mr. Dobb spends an unconscionable time packing for a journey on which he never starts.

But if Mr. Dobb leaves us still seeking an adequate theory of the Entrepreneur Function, he deserves our thanks for a stimulating and provocative piece of thinking. He brings the light of an original and sceptical mind to play upon the teaching of his Cambridge masters. Nor has he consulted only the oracles of orthodoxy. Mr. Dobb's most valuable chapters reveal the influence of Marx and of Veblen; he owes something also to Mr. Dickinson's "Institutional Revenue" (*Economica*, June 1924); but their ideas are expanded in a way which is peculiarly his own. The distinctive feature of Mr. Dobb's work is his emphasis on the institutional approach to economics; the extent to which economic relations are dependent on the institutions of a class society, and hence are in process of development and change; the way in which the factor of Monopoly and the formation of social classes are connected with the rise of the Capitalist undertaker; the way in which the existence of Monopoly prevents the Entrepreneur Function from being adequately fulfilled. Economists have tended to devote attention to but one set of influences and neglect others that enter in as essential and material parts of their problem. In emphasising the significance of institutional factors, Mr. Dobb has rendered a conspicuous service.

Special mention should be made of the two hundred pages in which is surveyed the influence of institutions on the growth of the existing system of enterprise. The object of this survey is

to illustrate the ideas fashioned in the analysis of the first part. Mr. Dobb occasionally (*e.g.* in the discussion of the origin of towns) wanders farther afield than is necessary for the development of his main thesis. In itself, however, this section is far the best in the book and might well be reprinted separately. I congratulate Mr. Dobb upon the way in which he has handled his authorities.

J. LEMBERGER

The Social Significance of Death Duties. Adapted from Dr. Shultz's translation from the Italian of Eugenio Rignano by SIR JOSIAH STAMP. (London: Noel Douglas. N.d. Pp. 168. Price 5*s*. n.)

SIR JOSIAH STAMP has no bowels of compassion for the patient bibliographer or the conscientious reviewer. His book is undated, and in the place in which the date is most usually given he has allowed the publisher to make the bad joke of putting his own initials, " N. D." I have had to gather from another source than his book that " Dr. Shultz's translation of Professor Rignano's work for American readers " is *The Social Significance of the Inheritance Tax*, a book of 128 pages published in New York in 1924 and I am still in the dark as to the name and date of " Professor Rignano's work " itself, except that I can say, firstly, that it is not the much larger book published in Italian in 1901, of which the French version, *Un Socialisme en harmonie avec la Doctrine Économique Libérale*, was reviewed by Sidney Ball in this JOURNAL for March 1904, and secondly, that it must have come out after September 1919, since the first chapter of Part I in the present work (pp. 29–41) is said on p. 148 to be a republication of the article " A Plea for a Greater Economic Democratisation " contributed to this JOURNAL by Professor Rignano at that date, though it is not, in fact, a mere republication, as the English is altered (and very much improved) throughout and some changes are made in the substance.

This chapter contains the essence of the " Rignano Plan," and Professor Gerbino, when he says (p. 148), " Rignano's project is known to English readers as explained to them by himself," is juster to this JOURNAL than Sir Josiah Stamp, who says (p. 7) that the British public " only knows Professor Rignano through the references of other writers."

The rest of Part I consists of an appeal to Socialists to be practical, and some details in the working out of the Plan (pp. 42–65). Part II is a reply to various criticisms (pp. 69–109).

Part III, "Toward a Practical Realisation of this Programme" (pp. 113–34), consists of two chapters, which Sir Josiah Stamp has adapted, to suit British ideas and conditions, the first, "A Maximum Project," having been originally written by Professor Rignano, and altered to suit the United States by Dr. Shultz, and the second, "A Minimum Project," having been Dr. Shultz's own work. Appendix I is a letter addressed in 1921 by M. Emile Vandervelde to the then Prime Minister of Belgium, recommending the scheme for Belgium, and Appendix II is a reprint of an article by Professor Gerbino, proposing it as a means for the more rapid extinction of the British National Debt, which appeared in this JOURNAL for June 1925.

For the benefit of those who have become readers of this JOURNAL since Professor Rignano explained his plan in it, we may say here that the proposal is to levy a confiscatory duty on property which the deceased received by inheritance from someone who had himself inherited it, a high duty on property which the deceased inherited from someone who had not inherited it but had accumulated it, and a lower duty on property which the deceased himself accumulated. The distinction between the whole of what the deceased received by inheritance and what he accumulated is easily made by referring to the records of the tax-collecting agency and finding how much he received during his life by inheritance or bequest: this value (or his whole estate if it does not amount to so much) is the inherited portion, and the remainder (if any) is the accumulation. How the division of the inherited portion into that which comes from a previous inheritance and that which comes from a previous accumulation is to be made is nowhere, I think, explained, but presumably it would be made on the same principle, so that if, for example, an aunt, whose total estate was £10,000, made up of £7000 inherited and £3000 accumulated, had left a nephew a legacy of £1000 net, that amount on his death would be allotted 70 per cent. to the part of his estate liable to the confiscatory duty and 30 per cent. to the part liable to the high duty.

Professor Rignano conceived that the outcome of his plan would be an economic paradise in which nobody would have to pay any taxes, and the individualist lamb would lie down with the socialist lion, both being content to see private property passing steadily into the hands of the State. It is rather curious that neither his friends, who were few, nor his enemies, who were many, seem to have made any attempt, or at any rate any attempt which has attained considerable publicity, to estimate

how much could really be got out of the scheme. Now even in 1904–5 the total tax-revenue was £121 m. and the whole of the property paying estate duty was only £264 m., so that to clear the country of taxes other than death duties, 46 per cent. on that property would have had to be levied instead of the 4·7 per cent. actually levied. Considering the rate at which capital increases, there is no reason to suppose that Professor Rignano's 50 per cent. on first and 100 per cent. on second transmissions would have brought the yield up to 46 per cent. on the total, but it is not outrageously absurd to suppose that they might have done. But in 1924–5, while the property paying estate duty had only risen to £442 m., the tax-revenue had risen to £680 m., so that to clear away the taxes the Rignano duties would have had to raise the death duty receipts from the actual 13½ per cent. on the total to 153 per cent.!

In fact, it does not seem likely that the addition of the Rignano duties could bring the receipts up to 40 per cent. The second transmissions are not a large proportion of the whole, and would be a much smaller one when 50 per cent. was levied from the first. Of course existing taxes might be maintained, so as to provide with the additional Rignano duties a larger surplus for the extinction of debt than is provided at present, and when the debt was entirely paid off, the acquisition of positive property by the State might be begun. But every financial authority knows the difficulty of maintaining taxes for the extinction of debt, and the difficulty would be at the most very slightly diminished. The present taxes would certainly soon be reduced and the expenditure increased.

Consequently the scheme has fallen somewhat heavily from being a social panacea to being a possible expedient for redistributing taxation in such a way that a little more can be got out of the tax-payers without making the whole community worse off than at present.

Would a discrimination against property inherited by the deceased tend to diminish either the avoidance of death duties by gifts *inter vivos* or the discouragement of saving?

If it would diminish the tendency to avoid the death duties by gifts during life, this would be a great merit. It is easy to pooh pooh this tendency, and to say that people will not divest themselves of much of their property in their lifetime and run the risk of meeting the fate of King Lear. This is true of small and moderate fortunes, but when a man has hundreds of thousands he can part with a great deal without the least real risk of poverty

or even discomfort. I cannot believe that persons with just over two millions will long continue to compel their children to pay £624,000 more to the Exchequer than would be necessary if they cut themselves down to the fairly comfortable competence of £250,000 a few years before their decease. And it must be remembered that a very large proportion of the death duties are levied on large estates: about one-quarter of the whole comes from estates exceeding £800,000. It is futile, at any rate in Great Britain and America, to talk of prohibiting or taxing gifts made more than a very few years before death. To stop bootlegging is a very easy thing as compared with stopping a man from handing money to his children.

Now where a person has had a considerable inheritance and is accumulating largely in proportion to what he has inherited, the proposed discrimination (with an equal total yield) would make him less inclined to avoid by gifts, since he would not be able to diminish the amount to be levied in respect of the inheritance. But if he sees little prospect in any case of being able to add much to his inheritance, the heavier duty levied on it (heavier than under the existing system) would make him more inclined to avoid by gift. Where the property inherited by the deceased is small, the lighter duty (lighter than at present) would of course be less "encouraging" to avoidance in cases where it is in fact encouraging at present. Roughly we might perhaps say that the tendency to avoidance would be greater than now with the "old rich" and less than now with the "new rich"; and the net balance is difficult to strike.

Similarly with regard to the discouragement of saving. One set of people would certainly say, "My estate will have to pay so much on my inherited property that there will be little of that left for my children: therefore I must toil and scrape more than ever to accumulate something out of income"; but another would say, "I can't make ends meet, to say nothing of accumulating additions to my capital, so I may just as well spend freely—it's all or mostly at the expense of the Government." Where the inherited property is too small to matter, of course the lighter (than at present) taxation of accumulation would be less discouraging to saving than the higher taxation of the present. Again the net balance is difficult to strike.

EDWIN CANNAN

The Economy of Human Energy. By THOMAS NIXON CARVER, Ph.D., LL.D. (New York: Macmillan Co. 1924.)

ONE provision in the present which might greatly benefit the future would be a Chair of Plutocratic Economics, to advise the rich how to spend their wealth. The reflection was suggested by a remark of Professor Carver (amply supported: pp. 22, 23, 205, 209, 210, 228, 232) "The most-needed men at the present time in our industrial system are the wise investors." The wisdom of the remark is not impaired by the facts brought home in the author's more recent book, *The Present Economic Revolution in the United States* (Boston, Little, Brown & Co., 1925), where he shows how wisely the American working man has begun to invest for himself. The millionaire is still a greater wonder to us, and a greater problem to his fellow-countrymen.

Yet the humbler men are more likely to take the lessons of the present book to heart. As is not unusual with books in general. the title hardly hints at the contents. We might have found a discourse on the Steam-engine or the Tractor. These are not omitted (pp. 53, 186, 188), but there is much besides. Some things in the book are old; it would be strange to find nothing but novelty, and equally strange in our author's case to find nothing but antiquity. Out of the wise man's treasure-house come things new and old, human life being for the most part continuous. A high economic authority speaks of human acts in vulgar trade and industry as controlled by an Invisible Hand to results not contemplated by the agents. So Professor Carver tells us: "Human beings act unconsciously, driven by their own nature, precisely as they would act consciously if they were convinced by unanswerable logic that the most valuable thing in the world was human energy, and the most profitable was to transform the largest sum of solar energy into human energy" (p. 12). So one man is not at all as good as another. He who contributes to energy in others as well as exemplifies it himself is the better man, for he is making the world better. Yet our author (some of us will say quite rightly) will not make it a question of Greatest Happiness, but rather of the (Aristotelian) increase of energy and enlargement of the stream of human life. Pleasure is, however, a good lure to lead us to function (p. 23).

With advancement there must be conservation of advances, and this means largely thrift. There is no conflict between thrift and a high standard of living; to keep up a high standard of living it is not necessary to be wasteful. "It is the writer's

observation that the thriftiest people are the people with the highest standard of living," for thrift is not mere shunning of expenditure, it is judicious expenditure, with an eye to the future (p. 36). Thrifty communities spend more than unthrifty; they have more to spend. They spend on producer's goods (p. 37). Also there is an economy in food, which means choice of the food most economically grown, bacon above others (p. 43, etc.). The praises of the hog may be set down by some Englishmen as "so American"; but the case deserves study. "The fecundity of the hog and its quick maturity give the pork producer a much quicker turn-over than the beef or mutton producer, and thus tends towards a lower cost of production" (p. 47). A nation that refuses hogs is refusing an economic advantage in the struggle for existence. So vegetarianism is a costly luxury. "All the cornstalks, wheat straw, bran, cottonseed meal, and other by-products which are not suitable for human food would have to go to waste," while there are animals standing by quite ready to turn them (and themselves) into food for us (p. 50). Special foods can be supplied so economically and on so large a scale that they should be the staple diet, "if the world is to support the *maximum* number of people on the *optimum* scale of health and comfort;" these foods are wheat, beef, mutton, potatoes, sweet potatoes, Indian corn, and sugar (p. 57). In this connection our author's estimate for the U.S. is illuminating. He gives in a Table the Standard Ration for the Army and the amount of land in acres needed to furnish the several foods in pounds and ounces (p. 63).

What is the economic importance of moral qualities? Trade as we all know (from the old authority already quoted) cannot move easily without honesty. Our author adds that other people's lives are not safe unless we have sobriety (pp. 115, 179). It is of no avail to hold with Lafcadio Hearn (p. 82) that in societies of Ants we have absolute altruism without any sense of duty. We are not as emmets are. We need the law of duty and we need civilisation, "the art of living comfortably together in large numbers" (p. 105). To preserve it, we need competition, which "is the breath of life to us" (pp. 121, 209). To carry on the best form of it, we must be picked men, able to stand in the evil day, withstand temptation, and endure discipline, adopt new inventions and adapt ourselves to new circumstances. Cain's victory over Abel was that of new over old methods of production (Chap. VIII). It is no reproach to be slaves of the machine (p. 178).

The application of this homily to our own country is telling. Why is England's labour problem so acute? There is too much labour, there is quite enough land, there is quite enough capital. "There are not enough men who know how to employ labour, land and capital in such a way as to turn out a product that people will buy, at a price that will cover the cost" (p. 135). The way is made hard for the English employer by the Dole; he has to pay labour twice over, his own men, and the unemployed (p. 136). "If business were not taxed to pay doles to the unemployed, there would be fewer unemployed" (p. 136). We do not bring up enough men to find the new ways; we send too many into the learned and "respectable" professions. We complain when a man whose heart is still in his work insists on working beyond a fixed age of retirement and going on till he drops. Such men are at the least lightening cost and some of them adding new strength to us. There is nothing more pitiable than the spirit that says: Soul, thou hast much goods, etc., now eat, drink and be merry (pp. 148, 150). We need all the talents, young and old. The sum of all good educational policy is the proper distribution of human energy, so that it goes where it is wanted most (p. 170). We have not yet exhausted the infinite variety of division of labour (Chap. XI). Mr. Carver has dealt mainly with border questions between ethics and economics in this book; but there are some good discussions that are mainly economic. The application of the marginal theory in Chap. XIII seems very happy. There are good contributions to current controversy. If the product of industry is all due to labour, then a "pacifist" must attribute all the blame of a munition factory to the workers. If evil is done by ardent spirits, the blame falls on the workers, who (on that theory) alone produced them (pp. 250, 251).

Such a book coming from such an author is popular political economy without the drawbacks thereof. It was written in the first instance for Americans; accordingly, the diction, it must be said, is not always our conventional English.

J. Bonar

A Theory of Consumption. By Hazel Kyrk. (London: Pitman. 1924. Pp. 293.)

This book is both a plea for a completer study of the economics of consumption, and an important contribution to it. What is "the world behind the demand curve," and to what extent has it an organisation and system of rules, parallel to that which is found in the world behind the supply curve? It is the keynote

of this book that the theory of consumption cannot be limited to a theory merely of *use*; the consumer being not merely the final and passive receptacle into which flows a stream of goods, to settle at the uniform psycho-physical level of marginal equivalence. The author perceives three aspects of consumption, all of them active; general purpose, choice, and use. All of these control economic activity. And all of them relate to welfare; the final purposes of life, the things which society chooses to have made, and the economy of use, are as important a study as the technique of production. An important examination is made of the consumer's freedom of choice, and the limitations upon it, through necessity or convention. The technique of production affects it, as well as the ethical standards of the producer, in respect of quality of supply, economy of supply, and suggestion through advertisement. The marginal theory is discussed, and criticised because of its emphasis on individualism and hedonic tests of utility. Here the author might have gone further, in the direction of Mr. Hobson's discussions of consumers' purposes. What is it that is made equivalent at the margin of use? In a world composed of individuals of all types, hedonists, Kantians, intuitionists, and so forth, is expenditure determined in each direction by any more particular formula than that it is thought to be equally *right?* In investigating the world of purposes and standards which lie behind this judgment, the author is led into an interesting examination of the meaning and variation of standards of life. The chapters on this theme give to the bare theory of consumption a substance and content similar to that given on the other side by the study of the organisation of production. True to the best modern pyschology, the key to the consumers' activity is found in what may be called long-period purposes, but limited by conventional obstacles. For the exploration of this hinterland, some new paths are made and followed, and diffuseness can be excused where so much is brought under review. This commendable contribution was written as an Essay for a public prize, and is now published with the well-deserved approval of such examiners as J. B Clark, J. L. Laughlin, and Wesley Mitchell.

D. H. MACGREGOR

Money. By PROF. R. A. LEHFELDT. (London: Oxford University Press. 1926. Pp. 112. 2*s*. 6*d*. net.)

PROFESSOR LEHFELDT has succeeded in compressing into 112 pages an outline of monetary history as well as of monetary theory.

And he does not confine himself to the mere elements of the subject; he discusses the value of money under Diocletian, par clearance under the Federal Reserve, Jevons on the harvest cycle, and the "unspent margin." All this is achieved without any sense of overcrowding or hurry; there is no conscious effort to include a multitude of information; the items take their place in the natural flow of the writer's thought. The style is tranquil, easy and lucid. Professor Lehfeldt follows the opposite principle to that which lays down that the only way to give the student a good grasp of this subject is to make it appear much more difficult than it really is.

Yet the book is necessarily something of a *tour de force*, and the beginner is in danger of being beguiled. Theory is postponed until the end. But with the quantity theory still to be explained, the diverse systems of note issue and the significance of bank deposits must remain in part un-understood; no account of the monetary cycle is worth while which precedes the treatment of velocity of circulation. Some repetition is probably essential to full intelligibility; the author is too skilful in economy.

The descriptive chapters take a comprehensive view of the subject and introduce examples of monetary practice from a wide range of countries. They also include some interesting quantitative information usually absent in text-books of this size. The chapter on bank deposit money presents the subject in an original manner; it shows how loans create deposits, but it does not explain the further view, which Mr. Hawtrey has been at pains to establish, that in a time of expansion additional loans may raise prices without creating additional deposits. It is hardly fair to complain of omissions. But the use of the bank rate ought to have been mentioned in the chapter on foreign exchange. Indeed the whole topic of central bank regulation is dealt with rather scantily. There is only one paragraph on the gold exchange standard.

Professor Lehfeldt is tolerant of monetary reformers; but he is not eager to join their ranks. He prefers to take an impartial and scientific view of their influence, to weigh accurately their chances of success. He stands outside in the line of spectators watching their struggle, and will not rush in and add his strength to theirs. He may conceive that it would be wrong to mislead students with vain delusive enthusiasms. "The general feeling has been a desire to get back to the comparatively satisfactory state of things existing before 1914; until that is accomplished, there is not much thought for such problems as gave rise to

Fisher's proposals. . . . But in time . . . they will come in for consideration." This is perhaps postponing reform until reform is by definition impracticable. For the "satisfactory state before 1914" does not surely mean here each nation having precisely the same monetary system as it had before 1914, but each nation having a well-defined system, with which it is more or less content, and from which it does not intend to depart unless compelled to by some convulsion. And is a return to 1914 still possible? The smaller nations may be willing to look after their own systems and let the general gold situation look after itself, which is what the state before 1914 also implies. But could the Federal Reserve Board, even if it wished to, ever slip back into thinking of nothing beyond the convertibility of the dollar? Can the self-conscious man regain his native innocence?

Professor Lehfeldt has set himself to compose a small text-book on money; but he is so clear-headed, so well informed, so incapable of padding or redundancy, that what he writes must command interest and attention.

R. F. HARROD

The Medieval Village. By G. G. COULTON, D.Litt., University Lecturer in English. (Cambridge Studies in Medieval Life and Thought.) (Cambridge University Press. 1925. Pp. xxx + 603. 25*s*. net.)

"ECONOMIC History," as a subject for systematic investigation and teaching, has pulled itself out of the welter of miscellaneous "social history" by grounding itself on institutions. So long as there was nothing to be seen but a mass of unrelated particulars, the knowledge of a number of them might satisfy a love of the picturesque, the strange or the horrible; but could hardly give rise to a fruitful study. Such a study began to be created when it was realised that the mass of particulars could be grouped in and around institutions. And it made notable progress when curiosity concentrated itself on economic conditions, and when to this new field were applied the methods of the legal and constitutional historians. The labours of scholars were vastly stimulated by the dominating thought of the nineteenth century—the thought of development. They looked for economic institutions; and they expected to be able to trace their origin, and to find them—in Europe at any rate, and however slowly—transforming themselves into other shapes.

But Economic History in this stage had its limitations. In

contemplating institutions it was only too possible to forget the very human men and women who worked them and lived under them. And what Comte said of Political Economy was true also of Economic History: it cannot be fully understood apart from other aspects of social life. So that a new handling of its topics, from the point of view of the student of literature, is likely to be refreshing and stimulating, especially if the initiator of the new departure be a man of imagination and generous sympathies.

Herein lies the significance of the work which Dr. Coulton has been prosecuting for several years; of the school of researchers which he has created at Cambridge; and, in particular, of his present treatise on the Medieval Village. It draws on a remarkably wide range of reading over the whole extent of the Dark and Middle Ages--reading, much of it, familiar only to the theological or the literary specialist; and it destroys the insularity of outlook which has characterised so much of English historical and economic writing by its wealth of parallels from all the countries of Western Europe. And—what Dr. Coulton certainly desires above everything else—it stirs us out of the complacency which so easily besets us, our contentment with formulæ and notional constructions. It forces us to feel anew; to picture afresh to ourselves the daily toil and narrow thought and scanty opportunities of the great body of our ancestors; the injustices they suffered; the meagre help they received from those whose clear duty, it may seem to us, was to protect and assist them. *Sæva indignatio* as a permanent frame of mind may not tend to impartiality: yet, for many of us, an occasional fit of it is very salutary.

It is only after saying this, and recommending Dr. Coulton's book to all seriously concerned with medieval history and emphasising the gratitude it richly deserves, that the reviewer will feel inclined to go on and make certain further comments.

It may be asked, in the first place, whether there is not some danger lest the institutional framework of medieval society may be somewhat obscured. "The manorial system" is no doubt often conceived of as more symmetrical and universal than it ever was in fact. But was it not sufficiently widespread and sufficiently similar over large stretches of time and space to make it the most useful preliminary framework round which to gather the new material? if only care be taken at once to lay stress on the multiformity of actual life. And as to the obligations of serfdom: is not the grinding hardship of *week-work*, three days a week throughout most of the year, far more significant than

particular and local grievances, however bizarre? The allegation that a particular lady made her tenants hunt for snails arrests attention; but is it, to a more settled gaze, so significant as the compulsory ploughing and harvesting, year in, year out? To judge from the index, *week-work* occurs in just one of the excerpts given by Dr. Coulton: no account is given of it as a prevailing institution. Probably Dr. Coulton assumes that his readers are familiar with Seebohm or with one of the manuals based upon him. Nevertheless a direct frontal attack on the problem is surely called for in a substantial treatise on the medieval village. That, in central and western Europe, roughly one half of a serf's *labour* was demanded by the lord, as a basis to which might be attached all sorts of other, yet minor, requirements, when this is compared with the half of the serf's *produce* (not labour) required so commonly in southern and south-eastern Europe—this is just the largest of all the outstanding facts which constitute the essence of ascription to the soil. The comparison points also, it may be thought, towards the determination of its place in social development as a whole.

And that suggests a further question: whether, even for the purposes of a general survey such as Dr. Coulton aims at, it would not be well to face rather more definitely the problem of origins, and the problem, wrapped up with it, of the direction of movement. Medieval society does indeed often strike one as amazingly static; and yet over the course of ten centuries we can hardly doubt there was some sort of trend. The question, what the trend was from, is not one that can be successfully shirked, or left by the social observer to the institutional historians. Dr. Coulton seems to waver between the older Germanist view of the degradation of free men into serfdom (*e.g.* on p. 9, with an apparently misplaced note 4), and the newer view—at first Romanist but now making way among even German scholars—of the elevation of slaves into serfdom (*e.g.* p. 385). It is possible that each view is true of particular districts or periods; but we want to know which is the more preponderatingly true; or, at least, what were the districts and periods to which each applies. It is evident that upon the answer or answers to these questions must depend our interpretation of a multitude of particular facts. And for this reason, if for no other, it might be well to impose upon oneself a self-denying ordinance in the matter of chronology and the choice of citations. If origins are not going to be faced seriously, then it would be expedient to limit oneself to material between, say, A.D. 1000 and A.D. 1400. It would be absurd to try to draw

rigid boundaries; and one may be patient with Capitularies of A.D. 800, especially when accompanied by a note that "the *servus* may [here] be a slave in the strict sense," (p. 106, n. 3). But Gregory of Tours (p. 107) does rather pull one up. *E pur si muove*, one murmurs. Of course Dr. Coulton feels this too: it is only to be wished that he had brought it out more distinctly.

A circumstance which, while it may possibly increase immediate interest in Dr. Coulton's book, will lessen, one fears, its future usefulness, is that the author's interest in his subject is largely dominated by another purpose. His main purpose as a scholar has for years been to investigate the character of medieval religion as a working system; to show its dark as well as its bright sides; to ascertain its real relation to the actual activities, hopes and fears of the several classes. This *Village* book is for him a "parergon"; and its purpose is quite fairly stated on the wrapper: "a study of the life of the medieval peasant, and of the attitude of the monk, as landlord, towards the poor."

To most of us who nowadays study medieval economic history it never occurs to think that the ecclesiastical landlord (sole or corporate) differed in any way, in his estate policy, from the lay landlord. Our material comes, in fact, mainly from ecclesiastical corporations; and we use it without hesitation—indeed without raising the question—as sufficiently illustrative and explicative of feudal landlordship in general. Dr. Coulton's repeated verdict that "the individual cleric was probably on the average a kindlier man" (p. 203); that the monk's "daily habits and thoughts must have been more sympathetic to the labourer than the knight's or his vassals'" (p. 230: cf. p. 378), will not seem to err from want of charity. His "tentative" estimate that "the monastic landlord was four or five per cent. better than his brother the layman" (p. 142) will appear an almost liberal allowance. But apparently there are quite a number of popular writers and journalists who idealise the monastic landlord and make the Middle Ages golden ages of clerical beneficence and peasant happiness. These bulk very largely in Dr. Coulton's eyes, and he misses no opportunity to smite them hip and thigh. Of course he does it triumphantly; there is very little left of them when he has dealt with them. But one can't help wondering whether it is worth while. In Germany, no doubt, Janssen and Pastor have given the worshippers of Luther a lively time: after the bow had been bent too far in one direction it is not wonderful that it should be bent too far in the other. In France, it looks as if the rival defenders of the Revolution and of the Ancien Régime will go on

being the mouthpieces of "les morts qui parlent" until all the archives have been rummaged. But in England? There are Messrs. Belloc and Chesterton, and even Cardinal Gasquet; but do scholars really take them very seriously? And as to the journalists—is a 25*s.* book the way to get at them?

Moreover, though Dr. Coulton—it must be repeated—makes all his big points quite conclusively, there is just a little tendency to push the victory a trifle too far, and this may give the impenitent journalist a little more opening than he deserves. Here are a few examples.

Pollock and Maitland (I. 397) are referred to (p. 13) for examples of the sale of a serf apart from the land. They conclude "he is *seldom* sold as a chattel, though this happens *now and again*." Dr. Coulton's comment, on the same references, is, "even in England such cases are *not infrequent*." The darker colouring would seem to call for a word of explanation. Dealing with the question how far the monks deserve credit for having cleared the forests, Dr. Coulton refers to Flach, as having "summed up very justly in his solid and fully-documented study," the *Origines de l'ancienne France*. To those who have read Flach's polemic against Fustel de Coulanges these will seem doubtfully appropriate adjectives. In passing, be it remarked that neither Fustel's works nor Seebohm's occur in Dr. Coulton's bibliography. On this special point, however, not even Flach could call his conclusions "fully documented." He carefully explains that from the nature of the case (as he understands it) he cannot produce documentary evidence. In a footnote he explains that he has just one bit to show; but it surely requires a great deal of imagination (whether rightly or wrongly employed) to get his conclusions out of it.

The attitude of the ordinary peasant toward religious services, Dr. Coulton describes (probably enough with accuracy) as "listlessly well intentioned but no more" (p. 260). But why the footnote, with two learned references: "We need not emphasise the fact that medieval children sometimes played at church ceremonies"? It is not quite clear which way this is meant to tell, but the implication is that it supports the text. But have not children, in indubitably God-fearing households, played at being priests or ministers? Did not Dr. Coulton himself ever "dress up" and preach to the admiration of his playfellows or the servants?

The whole problem of Usury is a large topic which Dr. Coulton could not avoid. But he does not make his attitude clearer by

the indiscriminate use of "capitalistic" for almost every employment of, or desire for, wealth (*e.g.* pp. 280, 284, 301). Is not the question at issue precisely this: in what way and when did "riches" become "capital"? And that being so, in what sense can the demand of the German peasants at the Reformation period that "usury should be put down" be called "essentially reasonable" (p. 355)? How could it have been done? And if it was to be effected by distinguishing between "excessive" and justifiable usury (p. 366 n.), was not that just what the poor old canonists were trying to do? With economic life so diverse as it was in the later Middle Ages, it is no gain to regard practical problems as susceptible of quite simple solutions. In escaping from the Scylla of—shall we say?—Dr. O'Brien, we must not fall back on the Charybdis of Jeremy Bentham.

In more than one place Dr. Coulton explains the slowness of the monastic proprietors to carry through measures of emancipation by the natural conservatism of corporations. For this they must bear the blame. But without giving them credit which they do not deserve for the unintended results of their inaction, it is worth while just pointing out that this very conservatism was for what many of us may regard as the benefit of succeeding generations. It is true, for instance, that in Bavaria the law long survived which bound the peasant to the soil, and that "Bavaria is one of the districts in which the Church has had most uninterrupted power" (p. 158 n.). It is also true that Bavaria retained, in consequence, its peasants on the soil, and that it is perhaps the district in Germany where the agrarian situation on the whole is now most satisfactory.

But it has already been indicated that Dr. Coulton is really only concerned, when dealing with ecclesiastical landlords, to prove they were not patterns of benignity. All rural life, whether under lay or clerical lords, he paints in sombre colours—in spite of the cheerful picture of dancing peasants which appears on the wrapper, and of the village procession, as entertaining as a cinema, which forms the frontispiece. A perhaps unnecessarily cheerless impression is created by the very effectiveness of some of the instances quoted; for what one wants to know is how far they were typical. Take, for example, the *merchet*. In certainly the vast majority of cases this was a fine paid by a villein when he married his daughter into another manor. In some few cases the rule applied also to a son. But clearly in most instances it did not. And therefore to say, apropos of the rule of the Church as to forbidden degrees, that "where, as often happened, the bondmen

of a particular lord formed quite a small group . . . then *any serf* who was particular about his soul must have paid the enhanced (?) fine for marriage outside or have condemned himself to celibacy" (p. 472), does seem too sweeping a generalisation. And when this topic leads on to a consideration of that alleged brutal *droit de seigneur* which was made so much of by certain types of revolutionary literature, it is not as easy as one could wish to see in Dr. Coulton's elaborate Appendix that absolutely dry light that he properly demands in the historian. Whereas Pollock and Maitland (i. 354) believed it "utterly impossible" to find any entry in English documents which sanctioned "the alleged claim," Dr. Coulton suggests its possibility by reference to a case which is one (1) of exceptional lust, (2) where the father did give his daughter in marriage against the lord's will, and (3) where a remedy for violent housebreaking on the lord's part was offered by the king's court. As to the Continent, Dr. Coulton does not maintain that the alleged right was ever enforced; it was a threat, he holds, for the purpose of extorting a payment; and "even in this form it existed only sporadically." If so, is it not just a little misleading to speak of it as "a side of village life" (p. 80)? It may be added that the very different custom surviving in France in the seventeenth century (p. 467), and the other custom subsisting till 1790 (p. 468), while they may conceivably have descended from an ancient usage of almost unthinkable bestiality, if that could itself be proved, may with much more likelihood have had altogether different origins.

However, all these comments are not meant gravely to detract from the merit of a considerable achievement. Its author has felt himself under a moral compulsion to be frankly controversial. It is "a laborious race," he pathetically remarks, "to overtake a host of misrepresentations" (p. 388). And he implies that "the necessarily contentious stage" of social history is not yet over. He may be right. But on all points that really matter he has the big battalions of scholarship on his side. And the reader who admires his work and accepts it with gratitude cannot but wonder whether in future a less personal note—more of the impersonality of the great masters—would not be more effective even with the wicked world of journalists and partisan writers he has so much on his mind. The first personal pronoun sometimes makes even scientific truth seem an individual hobby.

WM. ASHLEY

L'Évolution Commerciale et Industrielle de la France sous l'Ancien Régime. Par HENRI SÉE, Professeur honoraire à l'Université de Rennes. (Paris : Giard. 1925. Pp. 396.)

PROFESSOR SÉE modestly describes his work as " a provisional synthesis." And its value cannot be better expressed than in his own words : it will do much to " make clear the questions involved " and to " show the gaps in our knowledge."

It is the fruit of the comparative leisure its author has enjoyed since he has retired from his office as a teacher at the University of Rennes. In earlier years he honourably distinguished himself by original investigations, especially into the economic history of his own province of Brittany. He has not ceased to work in this special field, and to set forth his conclusions from time to time in papers addressed to a specialist public. But the teaching and administrative duties of a modern French professor are onerous ; and while Professor Sée's time has been mainly occupied in the immediate tasks of each day, his bookshelves must have been flooded with the stream of monographs, on particular districts and towns and trades and manufactures, which has been pouring forth in France, especially in recent years, in extraordinary abundance. As I have already remarked in reviewing M. Sée's *Vie Économique*, which deals especially with the agricultural policy of the Ancien Régime (ECONOMIC JOURNAL, XXXV, 288), France, with respect to work in economic history, has now taken up the running which, for thirty years or more, was made by Germany. There is, I suppose, this difference ; that the German researches were mainly those of professional " economists," while most of the French researches proceed from professional " historians " : a difference which will display itself both advantageously and disadvantageously, I expect, in the character of their output. Whether this will be so or no we shall soon see ; for already the collections of documents, the doctoral theses, the off-prints from scientific journals and so on, are piling themselves up. The bibliography for industry and commerce alone, not including agriculture, at the beginning of the book now before us contains 243 entries, quite three-quarters of them dating since 1900. It was time, therefore, that some competent scholar should try to take hold of this literature as a whole, and see to what extent it reaches conclusions which justify generalisation. This is what M. Sée has undertaken with untiring energy and zest ; and students in his own country and in all countries can hardly be too grateful to him. Put together, this present work, *plus*,

on the agricultural side, *La Vie Économique*, and, on the literary side, *L'Évolution de la Pensée Politique*, which has appeared this same year, may be said, not inappropriately, to do for France somewhat the same service as the second volume of Cunningham's *Industry and Commerce* did for England. Like Cunningham's, M. Sée's work is easily open to criticism. Written almost necessarily piecemeal, with a particular group of materials under consideration in each chapter, it is not so effective a piece of exposition as a far less independent as well as laborious writer can make out of it, now that the survey has once been made. In the nature of the case, the author, whose desire must have been to cover the ground without any long delay, is not likely to have weighed with equal care all the evidence. It is therefore not difficult to pick holes in his narrative—and sometimes quite big holes! But, if he tells us at every point just what his evidence is—as Dr. Cunningham and M. Sée have both done—he himself supplies the opportunity for subsequent correction. And a synthesis, however provisional, is such an immense help, both to the teacher of university classes and to the scholar who would make further inquiries, that it deserves more gratitude than it sometimes receives.

That M. Sée's work is really intended to be provisional, the author makes clear in his Preface, as well as in repeated words of caution throughout the book. He remarks, for instance, that the organisation of the craft corporations in the towns has been made sufficiently well known by a series of recent treatises; "but we ought to have a more distinct idea of the relative importance of the several crafts," and for this the assessment lists and notarial and judicial archives will furnish the investigator with valuable material. There are already many books on the history of commerce, especially of overseas and colonial trade; but as to commercial practice, the place occupied by factors and agents and bankers, "almost everything has still to be done"; and here the Admiralty archives and those of the Chambers of Commerce and the consular tribunals, together with the account books, where they survive, of business houses, have hardly yet been approached. On domestic trade, little has yet been written: we know that it was impeded to some extent by mistaken regulations and bad roads: we have not yet mapped out the various branches of internal commerce, with their stratification and location. About the royal and privileged "manufactures" in the contemporary sense of that term we know perhaps enough. But as to the rural and domestic industries, especially in the

textile and metallurgical trades, though we have already been brought to realise that they proved the really characteristic part of the economic development of the time, and constituted the intermediate stage out of which modern capitalism and the factory system were destined to emerge, many more monographs are necessary, says M. Sée, before we can measure their significance.

It is not by way of criticism of so substantial an achievement as M. Sée's book, but as a small contribution towards M. Sée's own desire, viz. further progress starting from the point now reached, that one would venture to make a few general observations.

And the first is that there may be some danger in fixing one's attention too exclusively on the subject immediately under discussion without remembering the background of general history. During the three centuries here under review there were the Wars of Religion, the Thirty Years' War, the Wars of Louis XIV, the Seven Years' War. These must have had some effect, if not always on the country as a whole, on particular trades and districts, sometimes stimulating, sometimes depressing. Nobody wants the old "drum and trumpet" history back again as an exclusive diet; but one does want to remember what was going on outside the workshops. Perhaps a less obvious thought is this: there is reason to believe that the cyclical movement which characterises modern trade began to make itself felt in the eighteenth century, if not before. If its cause is psychological, failure to adjust supply to the market, we should expect it to appear as soon as French manufactures came to supply large and distant markets. If its cause is physical, the periodical failure of harvest, we should expect it in a country which, as M. Sée again and again points out, remained throughout preponderatingly agricultural in its interests. And hence complaints and lamentations concerning particular districts and trades are not necessarily to be taken as indicating gross and continuous defects in economic organisation: they may be the passing troubles and grievances of times of depression.

Similarly it may be asked whether the archival material is always such as to give a complete view of normal conditions. Take, for instance, the question of the *Jurandes*—the incorporated trades. No one with any knowledge of patent historical facts can take the rose-coloured view of their beneficence, completely solving all labour troubles, that was at one time cherished by some very useful Romanticists. We all know how narrow and monopolistic they became; how they tended to become closed hereditary castes; how they prevented the mobility of labour,

and so on. But, then, is it not true that it is chiefly when they were getting into trouble in some way or another that we hear of them in the administrative archives? If they worked fairly smoothly and for the general local interest, for even quite a long period in particular places, we should not hear of them. I will not lay stress on the probability that a form of industrial organisation which lasted more than four centuries must, for some large part of that time, and in certain large areas, have served a useful purpose: this would savour too much of *a priori* reasoning. But it may be pointed out that it was neither from the journeymen in the corporations nor from the domestic workers in the rural districts that the demand came for the abolition of the *Jurandes*—though one might suppose they had been given sufficient reason—but from the merchant class. We are accustomed to take the *Cahiers* of the *Tiers État* in 1789 as evidence of the grievances which the French Revolution was needed to remedy; and if we are justified in that habit, the two pages in which M. Martin Saint-Leon draws up the lists of *cahiers* favourable and unfavourable to the suppression of the "communities" should obviously carry weight in any historical judgment.

Then, again, one is inclined to wonder whether the action of the Government has yet received quite unbiassed treatment. One has only to penetrate a little below the surface in French historical writing, even that of our own day, to discern strong currents of prejudice *pro* and *anti* the French Revolution. M. de Voguë's *Morts qui parlent* occur to one's mind even in reading doctoral theses. Grant, as we must, that far too much was spent on the luxury and magnificence of the court and that the wars of the later years of Louis XIV were a drain on the resources of the country; granted also the tendency of all bureaucracies to magnify their office and to fall too greatly into the bonds of precedent; men and motives are wonderfully mixed. It is conceivable that the royal Government was often, especially on the larger issues involved, desirous to serve the public interest and gave serious thought to the problems before them. And now that we have had a century's experience of *laissez faire* and democracy, and cannot feel altogether happy about the social conditions which they have created or permitted, perhaps we can look back even on the Ancien Régime with more charitable eyes. And possibly we may not then see quite so much "préoccupation fiscale" as even M. Sée supposes. I must confess, for instance, that M. Fagniez's study of *L'Économie Sociale sous Henri IV* inclines me to ascribe more honesty of purpose and more per-

manent significance to the great measures of 1581 and 1597 than M. Sée would perhaps enable us to find in them. In extending and codifying forms of organisation which had sprung up more or less sporadically, they seem to resemble the legislation of Elizabeth in England. Indeed much that M. Sée puts before us suggests the desirability of comparative studies.

Whatever may have been the merits or demerits of the policy of control or regulation—and of course a different judgment is probably called for by different periods within the three centuries here considered—M. Sée does not encourage any illusions as to the practical success of the opposite policy of freedom, when and as it was in fact introduced. The edicts of 1763–64 establishing complete freedom in the internal corn trade worked out, he thinks, " for the advantage of well-to-do landlords rather than of consumers." They unluckily hit a period of poor harvests; and so great was the " profiteering " outcry—perhaps not without some justification—that the Intendants had to ask for powers of control to be restored so that they might be able to keep the peace. And as to foreign trade and the Eden Treaty of 1786, the forerunner of the Cobden Treaty of 1860, M. Sée agrees with those who think that it helped to precipitate the Revolution. And this is intelligible if we accept what he says of it:

> " So far as manufactures were concerned, all the advantage went to England. English goods inundated France: the machine equipment of France, being much less advanced, made resistance difficult; and the treaty, accordingly, brought about (*provoqua*) a very grave industrial crisis in the years immediately preceding the Revolution."

May I add a remark on two small points. It may seem ungrateful, in an economic journal, to minimize the merit of Montchrétien, who does appear to have been the first to use the term " Political Economy " as the title of a book (1615). But I am afraid M. Sée as historian defers too much to the economist who edited Montchrétien in 1889, when he tells us that " la théorie mercantile . . . a été pour la première fois exposée avec une netteté parfaite par Monchrétien "; since Montchrétien does but repeat, with rather wordy embroidery, the phrases of Bodin (1576). And similarly M. Sée's passing reference to Petty and Child as having " combated " the mercantile system is perhaps rather too faithful an echo of the tradition created by Roscher. As Professor Hull, who if anyone has a right to an opinion on Petty, pointed out a good many years ago, Petty was

in a sense " one of the most extreme among English mercantilists." And on Child there is a recent study by Dr. Helander of Gothenburg which shows very clearly the way in which his " free trade " generalities were neutralised by his equally large, unconscious admissions in the other direction, as well as by the very visible business interests which his pamphleteering was intended to serve.

WM. ASHLEY

The Lords Commissioners of Trade and Plantations commonly known as the Board of Trade, 1748–82. By ARTHUR HERBERT BASYE, Ph.D., Professor of History, Dartmouth College. (Yale University Press; Oxford University Press. 1925. Pp. viii + 240. Price 11*s*. 6*d*. net.)

PARLIAMENT, inspired by the military failures and commercial losses of William III's wars, was preparing to set up a Board to supervise the material resources of the kingdom, when the king, jealous of interference with his prerogative, created by commission under the Great Seal a body of Lords Commissioners " for promoting the trade of our kingdom and for inspecting and improving our plantations in America and elsewhere." The Board consisted of seven great officers of State and eight others, who constituted the real Board. Its duties were, first, to study the condition of trade, the improvement of trades, the establishment of manufactures, and the condition of the fisheries. Secondly, it was to consider methods of employing the poor. Thirdly, it was to study the plantations and their resources, their settlement, the efficiency of the administration, and the character of colonial legislation. All these, or most of these, functions had been performed by earlier boards and committees. The special character of the new Board was that it was to collect information and to give advice, but not to take action. With regard to the poor it did nothing, but in its early years at least it devoted much attention to trade, mostly in the form of reports on matters referred to it by other departments. Even in 1697 " the voluminous papers that are from time to time transmitted from the several plantations " were, however, occupying most of the commissioners' attention, and it is this part of their work which has, not unnaturally, assumed most importance in Professor Basye's narrative. Whether an equally minute investigation of the transactions relating to trade might not redress the balance somewhat, it hardly matters, for the origins of what are now the Dominions Department and the Colonial Office are of sufficient interest.

The relations between the Board of Trade, as it came to be known, and the Secretary of State for the Southern Department (whose jurisdiction extended over the British Isles, Southern Europe, and the Colonies) were intricate and not infrequently hostile, and the importance of the Board varied with the intrigues of the Duke of Newcastle and the political exigencies of the great Whig houses, whose plaything was British policy. The impotence of the Board was probably at its lowest when the Earl of Halifax became First Lord in 1748. The subsequent history of the Board is traced in some detail by Professor Basye from its own minutes and the Newcastle papers Halifax was ambitious and anxious to become independent of the Secretary of State, and he did secure an Order in Council in 1752 making the Board the sole channel of communication with the colonies and giving it the right to recommend for colonial appointments. The power of patronage was lost in 1761, but otherwise the effective activity of the Board was little diminished. In 1766 another Order reduced the Board to being a "Board of Advice and Council upon such points only as shall be referred to it from his Majesty's Council, or from a Committee of Council, or by his Majesty by letter from one of the Secretaries of State"; correspondence with the colonies was now to be conducted through the Southern Department, and the Board lost the right of original representation to the Crown. As the author says, the Board of Trade was "unique in the British system of Government," without any organic connection either with the Privy Council or with the Southern Department, and yet the instrument of both. Without the slightest executive authority its importance varied with the ability and the political indispensability of its president. The urgency of American affairs led to the formation of the American Department under a third Secretary of State, who at the same time became First Lord or President of the Board of Trade, an arrangement which lasted from 1768 to 1779. The Board thus became a mere adjunct to the new department, principally occupied with the estimates for the new colonies and with the consideration of colonial laws. The next stage was the separation of the Board from the American Department, and at last, following on Burke's crusade for economy, abolition came in 1782. Two years later the Privy Council appointed a special committee for trade and plantations, but more particularly to deal with trade, and out of it grew the present Board of Trade.

The Board of Trade, whose history has been briefly recounted, had never any real power and practically no voice in the framing

of the major lines of policy. The Stamp Act and the Grenville policy, for example, were outside its purview, but it did good work in attempts to suppress paper money and was active in Indian affairs, in deciding the government of the territories gained from the French, and in first discouraging and then organising the settling of the new western territories. Professor Basye sums up : " It is impossible to study the work and policy of the Board without recognising that it was a real factor in the formation and in the execution of colonial policy; no other body, no other individual was so closely in touch with the affairs of the British colonial world. It attempted for eighty-six years to adjust the varying interests of the empire in respect of both the reconciliation of the liberty of the subject with the prerogative of the Crown and the correlation of the economic welfare of the colonies with the commercial interests of the mother country. That it weighted the scales in favour of the prerogative and of the home industries should not blind us to the fact that it developed policies consistent with the prevailing thought, and that it maintained these policies through all the vicissitudes involved in a rapidly changing personnel and in variations of power. Had it received that support from the executive and legislative authority which would have encouraged it to stand firm for the things in which it believed, the story of the vacillations and procrastinations of British colonial policy in the eighteenth century need never have been written. But aside from these larger questions of policy, the Board of Trade performed a lasting service for the empire by maintaining a constant watch over all the details of colonial legislation, colonial administration, and colonial commerce."

Professor Basye has done his best to make simple a tangled story, and while he has not neglected the trade activities of the Board, one could have wished he had applied to them to a greater extent his powers of analysis and synthesis. He appends a useful bibliographical note, but his own original research must have been considerable. His book is an adequate piece of work, and one can only express a regret that our younger historians have left the task to an American University. British economic and administrative history is not confined to the Middle Ages and the Industrial Revolution.

HENRY W. MACROSTY

The Grain Supply of England during the Napoleonic Period. By W. FREEMAN GALPIN. (New York: The Macmillan Company. Pp. xi + 305. $3.00.)

"THE problem facing the British Government of conducting a gigantic war, and, at the same time, of keeping its subjects contented by industrial activity and by a constant food supply, was most difficult indeed. It was a problem, moreover, which called for immediate solution, or else the enemy might win the war. Brushing to one side, therefore, the pointed criticisms of Englishmen and neutrals, the British Government hit upon the Licence system as a method of winning the war." This passage, taken from the above book, will conjure up familiar memories to English readers—especially to those whose recent war-time activities were centred in any Government department. Substitute the rationing of Danish pigs with American maize for the licensing of manufactured goods for export to France in return for enemy grain, however, and the frequently indirect nature of the work nowadays undertaken by the civil administration in time of war is exemplified.

If it be true that one situated at a distance—whether geographical or chronological—can form the most unbiassed conclusions, then, an American writing more than a century after its termination should prove a doubly suitable investigator into this phase of the economic history of the French war. Mr. Galpin has done his work remarkably well; no book could be better, or more fully, documented, and its value to students is thereby much enhanced. Here it is impossible to follow the author in his treatment of the legislative Acts and Orders in Council which were successively called for by the ever-changing situation, but it can be stated that he presents a complete picture of the conflicting factors which led, on the one hand, to the introduction of the Licence system, and, on the other, to the Continental closure. Naturally, the importance of the incipient American grain trade is stressed, but in this connection the statistics of wheat imports, recorded on p. 194, do not enable one to endorse his mild criticism of certain English writers. In the final chapter his summing-up shows him to be orthodox in his views as to the degree of success that might have attached to a complete blockade of this country, for he adduces figures to show that, in the worst circumstances, the gap between supply and requirements of wheat might have been equivalent to a little over seven weeks' duration, which the use of alternative cereals,

combined with restrictive measures, would easily have bridged. In this connection English readers may perhaps recall an official statement, issued in the spring of 1918, which declared that the country could be self-supporting for no less than forty weeks in the coming year—scarcely an endorsement of the growth of industrialism. The explanation, however, for this similarity in the estimates lies in the fact that the submarine blockade was to be countered, not only by rationing, but by a further increase in the extraction of flour, combined with so drastic dilution of the loaf as to imply the sacrifice of the bulk of our live-stock.

There is only one side of the subject the treatment of which may possibly be open to discussion, viz. the part played by the home-producer. Here Mr. Galpin has perforce to rely on contemporary accounts by, often, interested persons; accurate statistics of imports, exports, tonnage, even of population, are available, but *data* relating to acreage and produce are necessarily based upon individual estimates. The danger involved in their acceptance at face value is notorious, and it becomes a duty to discount much that emanates from such sources; this is especially true of forecasts and statements covering harvest yields and the condition of crops. We read time and again of "failure of harvest" and "harvest below the normal," but the psychological influences at the back of these statements call for investigation. It is easy also to read too much industrial and social significance into such window-dressing ordinances as those which aimed at a restriction upon the use of flour, for the regular appearance of similar ineffective (but widely demanded) measures a hundred years later served to familiarise the population with these signs of belligerency. Again, the statistically unjustifiable sensitiveness of cereal prices to such influences as those recorded above and others might have been stressed; equally, it was, and still is, unsafe to accept statements relating to the future of the country's barley trade from Norfolk and Suffolk growers. Finally, the direct results of enclosure during the critical period of the war would seem to have been exaggerated (as again was the case with the plough policy of 1918), for by no means can all the land thus converted have been annually under wheat, as accepted by Mr. Galpin, who calculates that, as 750,000 acres had been enclosed by 1810, "the home production [at 22 bushels per acre] must have risen some 2,062,500 quarters." These are the only points of criticism against a most scholarly production, and they are merely concerned with that part of the work which, in the absence of ponderable *data*, depends for interpretation on

bygone witnesses. Here present-day judges may possibly be swayed by exaggerated claims or baseless fears.

J. A. VENN

A History of Agriculture in Europe and America. By N. S. B. GRAS. (New York: F. S. Crofts and Company. 1925. Pp. 444.)

IN his earlier publications, notably *An Introduction to Economic History*, Professor Gras contributed much toward a better understanding of the evolution of economic institutions generally. *A History of Agriculture* is even more illuminating, and shows at its best the author's breadth of scholarship and painstaking research. As stated in the preface, it is not Professor Gras' intention to present "a detailed outline of things discoverable in the history of agriculture. It is meant to describe for general and collegiate use some of the more important developments in the history of rural life in Europe and in America. It aims at both historical and genetic treatment, that is, a description of the phenomena and a statement of the general evolutionary changes."

In this volume, as in his introductory history, Professor Gras presents us with a well-balanced discussion of the stages in economic development—the collectional, cultural nomadic, settled village, town and metropolitan economies. The author then sketches the early history of agriculture, the agricultural organisation of the Romans, and the manorial system. The relationship of the metropolitan economy to the prevailing agricultural organisation receives lengthy treatment in Chapter VI. This is followed by a discussion of (*a*) the significance and the history of the enclosures; (*b*) the later stages in agricultural development—scientific rotation of crops and specialised intensive agriculture; (*c*) the agricultural revolution in England; (*d*) the "enthronement" of agriculture in France by the Physiocrats; and (*e*) an admirable presentation of the "History of Property in Land." The author then turns to America, observing that "the study of European, and especially English, agriculture is a good introduction to American farming. The crops are essentially the same, except that Indian corn or maize has played a vital part in America, while it has been but little used as a field crop in Europe. Domesticated animals are almost identical, America having all that Europe has and only the relatively unimportant turkey in addition. On both continents, local peculiarities and variations occur in great plenty, according to climate, soil, and

topography. In both there have been a few agricultural leaders and many followers. In both, associations in great plenty have been formed for benefiting the tiller of the soil. In both, the Government has been of some assistance in furthering agricultural progress. And in America, we observe that changes in farming have gone through substantially the same stages as in Europe, though, of course, with much greater compression—necessarily in a shorter period of time" (pp. 284–5).

For those primarily interested in an historical account of the agricultural history of the United States, Professor Gras' concluding chapters will serve admirably. The value of the discussion might have been enhanced had the author added a detailed statement of the agricultural progress of Canada and of Central and South America.

FELIX FLUGEL

University of California.

Politica Economica Internazionale Inglese prima di Adamo Smith. By JACOPO MAZZEI. (Vita e Pensiero, Milano. Pp. 460.)

THE foreign commercial policy of England down to Adam Smith would seem a good subject for research. Unfortunately Signor Mazzei has elected to write a bulky volume of 460 large pages of rather small print devoted largely to second-hand evidence and opinions. A considerable proportion of the authorities cited are foreign, chiefly French and German, and the extracts selected are in many cases reproduced without critical comment or appreciation of the importance to be attached to them. Thus the following passage from Schmoller's *Grundriss der Volkswirtschaftslehre*, dealing with the effects of the English export bounties on wheat during the seventeenth and eighteenth centuries, is quoted as it stands, in spite of a statement in Marshall's *Industry and Trade* which proves clearly that his name at least was wrongly included: "All competent authorities—Arthur Young, Anderson, Marshall and others—are agreed in recognising that the bounties were on the whole advantageous to England. . . ."

From internal evidence it would appear that the author has conducted his investigations from abroad and has only had access to works obtainable outside England. The book reveals a vast amount of industry and sufficient power of independent judgment to show that its author was capable of producing really valuable work if he had proceeded on different lines. As it is, the result can hardly be said to justify the labour that has gone to its production.

Signor Mazzei is chiefly concerned with the development of Mercantilist doctrine and its influence on the foreign trade policy of England. He examines critically, in the light of the conditions of the time and the teachings of modern economics, the Navigation Acts, the Methuen Treaty with Portugal, the Eden Treaty with France, and other aspects of English trade policy. In regard to the Navigation Acts, he comes to the conclusion that these Acts not merely achieved their purpose of artificially stimulating the growth of the English mercantile marine, but also contributed in large measure to lay the foundations for the subsequent expansion of England's foreign trade. The rather scanty facts which he adduces seem scarcely strong enough to uphold so far-reaching a contention. Nor is his case much strengthened by appeal to the views of Schmoller, the chief of the Neo-Mercantilists of modern times. The suggestion that the slowness of the application of coal to the smelting of iron ore during the eighteenth century may have been due to the large amount of capital drawn into shipbuilding owing to the Navigation Acts, appears more than fanciful. In general his references to the early stages of the Industrial Revolution in England display a lack of acquaintance with the more recent work done by English historians in this field. He repeats more than once the statement that the growth of the cotton industry led to the decay of the woollen industries, being presumably misled by the expansion of the latter in the north at the expense of the south of England. It is also not correct to say that the cotton industry had already by 1730 assumed an important place amongst the industries of the country.

A debt of gratitude is owing to Signor Mazzei for having unearthed a very curious early sonnet by Giovanni Frescobaldi, containing advice to Florentine merchants proposing to make a business journey to England. It is impossible to resist the temptation to reproduce it here in the original[1]: –

" Ricordo per chi passa in Inghilterra
Vestir basso colore, essere umile
Grosso in aspetti ed in fatti sottile
Male sia all' inglese se l'atterra.

[1] Translation: "I advise him who would journey to England that he dress in sober colours, be humble, uncouth in appearance, yet subtle in deed; curst be the Englishman who gets the better of him. Spend freely nor show thyself mean. Pay at the time appointed but collect thy debts softly, pretending that thou art in great straits for money. Inquire not more than is reasonable. Buy at the right time if thou wouldst prosper. Entangle not thyself with men about the Court. Obey those who are in authority. Stand by thy fellow countrymen, and see to it that thou lock thy door betimes."

Fuggi le cure e chi pur ti fa la guerra;
Spendi son cuor e non ti mostrar vile
Pagare al giorno e riscuoter gentile
Mostrando che bisogno ti sotterra.
Non far più inchiesta ch'abbi fondamento,
Compera a tempo, se ti metta bene
Nè t'impacciar con uomini di corti.
Osserva di chi può 'l comandamento
Con tua nazione unirti t'appartiene
E far per tempo ben serrar le porte."

In many ways the most interesting part of the book is to be found in three appendices in which the doctrines of Thomas Mun and David Hume, and the wage theories of the Mercantilist writers, are effectively summarised and their influence on practical policy brought out.

The absence of an index, for which a fairly full table of contents is not an adequate substitute, is a serious omission in a volume of this size. A bibliography would also have been of assistance.

C. W. GUILLEBAUD

An Economic History of England, 1066–1874. By CHARLOTTE M. WATERS, B.A. (Oxford University Press. 1925. Pp. 610. 7*s*. 6*d*.; or in two parts, 4*s*. each.)

IT is an excellent thing that teachers of history in our schools should put their experience at the disposal of the public by writing "text-books" on the subjects they have been teaching. This is what Miss Waters has done in a sound and workmanlike manner. Her book is attractive, scholarly and enlivened with an admirable selection of illustrations. She has perhaps tried to pack rather too much matter into her pages, and she is over-conscientious in her determination to give her readers the latest results of modern research. There is a real educational problem involved. Economic history was introduced into school curricula in order to teach children about "the life and business of the common people," as Miss Waters herself expresses it. But that does not describe the work of the modern economic historian. He plunges into the jungle of engineering technique, threads his way through the intricacies of banking and speculation, traverses the wastes of industrial law, and it is by no means certain that the school teacher ought to follow him on his complicated wanderings. Miss Waters has kept almost too close to his tracks. Perhaps her successors will abandon the chase and strike out a new line for themselves.

T. H. MARSHALL

England on the Eve of the Industrial Revolution. By Louis W. Moffit, Ph.D. (Edin.). (P. S. King. 1925. Pp. xxi + 312. 12*s.* 6*d.*)

Industrial Society in England towards the End of the Eighteenth Century. By Witt Bowden. (Macmillan. 1925. Pp. 343. 15*s.*)

For some years students of English economic history have been pushing their way back from the watershed of the Industrial Revolution in the hope of eventually meeting that other band of inquirers that is advancing from its base in the Elizabethan Age. Too often their expeditions resemble raids from a fixed camp, rather than the steady advance of pioneers into new country. Professor Moffit's book is admittedly of the former class. He accepts 1760 as the date at which the period known as the Industrial Revolution began, and sets himself to examine the twenty preceding years. It is with the technique and organisation of industry, including agriculture, that he is chiefly concerned, but he does not treat his subject as a problem in industrial evolution. He is content to describe the stage of development attained by each industry during his chosen period, without showing any desire to interpret the facts. It is not surprising, therefore, that his book lacks unity. In some cases we find ourselves really "on the eve" of a revolution, in others in the middle of it. The result is a work of reference that will be of value to the student who has no time to read the works of Defoe, Postlethwayt and Young in the eighteenth century, and of Heaton, Daniels, Unwin and Westerfield among the moderns, of which Professor Moffit makes extensive use. It contains little that is new to the specialist.

It is inevitable, and reasonable, that a book of this kind should depend largely on secondary authorities, but Professor Moffit sometimes surrenders to them too completely, and leaves the reader to make his choice, unassisted, between divergent views. He is also rather casual in his use of figures. On p. 87 he describes a rise from 104 to 433 as an increase "by 416 per cent.," and calculates two other percentages in the same curious way. He quotes three different estimates of the number of private Enclosure Acts passed between 1702 and 1760, without trying to explain the discrepancy, and selects the last as being "the most interesting for the present purpose." In estimating the increase in the population of Liverpool between 1700 and 1760 he notes that Aikin put the figure for 1700 at "under 5000," giving an increase "of 400" per cent. In fact Aikin's figure is 4240, which would

make the increase one of 508 per cent., a material difference. He does not refer in the text to the other estimates for 1760 which he prints in an Appendix (though without giving their origin), and which would yield very different results. About half the book is devoted to agriculture, and here the author has kept more closely to his plan of writing "with special reference to Lancashire." The treatment is consequently more thorough, and the section on "Enclosure in Lancashire" is the best in the book.

Dr. Witt Bowden has made an important contribution to the history of the Industrial Revolution. His work shows signs of patient research among manuscripts and periodicals, and he is remarkably skilful in selecting passages to illustrate his points. In the first chapter he develops the now familiar theme, that the eighteenth-century inventions were the outcome of a widespread spirit of inquiry deliberately fostered and directed into useful channels by scientific and commercial societies. He tells the story of the Society of Arts, but does not mention the equally significant Society of Civil Engineers of 1771. He does less than justice to the share of the pure scientists, even asserting that members of the Universities and of the Royal Society rarely entertained the idea of applying their knowledge to things useful in the ordinary affairs of life. Has he forgotten that Evelyn experimented in agriculture, that Wren lectured on navigation, that Black was the patron of Watt and that both the Societies mentioned above were originally recruited largely from the Royal Society? In accounting for this outburst of activity Dr. Bowden expresses a view which is exactly the reverse of that put forward by Mr. and Mrs. Hammond in their latest book. While they attribute it to the lack of vitality in other quarters—"Politics were languid; religion was tired; social life was a spent routine," —he sees it as one aspect of a general awakening, a universal spirit of innovation; a view which is psychologically truer and more in accord with the known facts.

The third chapter, which is a development of Dr. Bowden's earlier work, tells of the rising political power of the great manufacturers, and of the quarrels between the various industrial groups. The author gives an account of the doings of the General Chamber of Manufacturers in relation to Pitt's Irish Resolutions and the Eden Treaty, showing how this precursor of the Federation of British Industries preferred "direct action" to any parliamentary reform that might have given them fair representation in the Commons. The incident shows Pitt, not as the Liberal frustrated by reactionaries that he is generally depicted, but as

a man behind the times, blind to the significance of the changes that were taking place in the industries of the nation. Dr. Bowden rightly rejects the view that the Government adopted a policy of *laissez-faire* on principle, and so abdicated in favour of the capitalists. He shows that policy was in fact based on experience, and often depended on the issue of a struggle between rival interests. The conflict between agriculture and industry is obvious, but the conflict between the old industries, serving a home market guaranteed by protection, and the new industries, serving a foreign market won by superior efficiency, has often been overlooked. Dr. Bowden's study of this problem is the most valuable part of his book

Finally, the author asks himself the question, why it is that the invention of machines to "abridge labour" resulted in longer hours and less pay for the workers? His answer is not entirely satisfactory, although it contains a good discussion of the condition of the workers before the Revolution, because he concentrates too much on the inability of the wage-earners to organise for collective bargaining. He does not examine the deeper causes, involved in the nature of competitive industry and magnified by the inexperience of the competitors. It would also be relevant to note that an imperfect credit system may destroy as much credit as it creates, and that imperfect machinery demands the maximum of unskilled mechanical labour.

It is noticeable that in none of the recent surveys of English industry is there any mention of the building trade. This is a gap that should be filled as soon as possible.

T. H. MARSHALL

Modern Economic History. By H. HEATON. Adelaide. 1925.

THE Workers' Education Association of Australia is to be congratulated on the text-book on economic history published for its members. Professor Heaton's book seems precisely the kind of work required by such readers. The present edition is the third; and is, we are told "drastically different from its predecessors, both in its content and in the allocation of space to the various subjects." As is natural and right, no less than one-third of the volume deals with the history as affecting Australia. The strong feature of the book is its clearness and the impartiality with which the most controversial subjects are dealt with. From this point of view especially to be commended are the chapters on "The Coming of Modern Agriculture";

"Land Settlement, Legislation and Tenure in Australia"; "The Tariff History and Industrial Developments of Australia"; "Trade Unionism in Australia"; and "The State Regulation of Wages in Australia."

Mr. Heaton does well in calling attention to the difference in motive and in action between many of the friends of collective ownership and the Socialist. Whereas Socialism is primarily a gospel for the producer, Collectivism has drawn most of its inspiration from the interests of the consumer. With equal clarity Mr. Heaton explains the causes of the failure of many attempts at co-operative production, and the difficulties in the way of successful co-partnership. As an example of the author's methods we may take his judgment on Bolshevist Russia. "The net result of the whole upheaval will probably be found to be: (*a*) the strengthening of the position of the peasant proprietor . . . (*b*) some survival of State industry in certain directions, and (*c*) the revival of privately owned industry, commerce and finance, subject to rigorous regulation in the interest of the wage-earner. Such a position would in essentials be very little different from that existing in Australia. But the price paid has been too heavy for the benefits gained."

H. E. EGERTON

Jahangir's India: being the Remonstrantie of Francisco Pelsaert. Translated by W. H. MORELAND and PROF. P. GEYL. (Cambridge: Heffers. 1925. Pp. xvi + 88. 8*s*. 6*d*. net.)

To historians of this period Pelsaert needs no introduction, as he is frequently quoted, though hitherto only at secondhand. Here at last is a translation from the original which will be doubly useful both for the additional matter which it contains and for its accuracy.

Pelsaert was a servant of the Dutch East India Company, who was sent in 1621 to Agra, where he remained until 1627, pushing and developing the trade of his Company. The Remonstrantie was written at the end of this stay and is "essentially a commercial report drawn up for the use of the Company." Hence much of the space is taken up with purely commercial matters—which, however, are of great importance to the economic historian. But a considerable part is devoted to the customs and manners of the times. The contrast between the extravagant luxury of the ruling class and the absolute poverty of the mass of the people is very vividly brought out, and serves as another witness against

the tradition of a "golden age." To those who have lived in Agra and have seen the many exquisite buildings dating from this period as well as the little old cemetery where some of the early European adventurers lie buried, the Remonstrantie makes fascinating reading, and one is grateful to Mr. Moreland for his very excellent translation and the many scholarly notes with which he has illuminated the text.

W. S. THATCHER

The Worker in Modern Economic Society. By PAUL H. DOUGLAS, CURTICE N. HITCHCOCK and WILLARD E. ATKINS. (Chicago: The University Press. Pp. xxxii+929. Price $4.50.)

Workmen's Representation in Industrial Government. By EARL J. MILLER, Instructor in Economics, University of Illinois. (Urbana: University of Illinois, Studies in the Social Sciences. Pp. 182. Price $2.00.)

OF the two works referred to in the heading, *The Worker in Modern Industry* is of the nature of an anthology, or, in the words of the authors' preface, "it is a book of readings, with selections from different sources, rather than a re-writing of them at second hand." The book thus consists of a number of extracts from writers of authority on the large number of subjects covered by the wide title of the work. This width is farther extended by "emphasising both the psychological and the underlying aspects of the modern situation." The idea has been to bring students into touch "with the basic researches in the field of labour," and, upon controversial issues, "the protagonists of the conflicting interests are allowed to speak for themselves." The authors argue that students will secure a more vivid idea of their subject by this direct study of great authors than they will obtain from the ordinary type of text-book. For this view there is much to be said. The authors have certainly provided a wide selection of extracts, typical of the writers quoted, and if this leads students to the study of individual works in greater detail it will have a value beyond that claimed for it by the authors. It will also be a very useful work of reference to more advanced workers. At the same time, the need for adapting many of the selections, though probably inevitable in view of the material available, may reduce their value as illustrations of the methods and ideas of the different writers. There are other dangers in such a collection which the authors see and attempt to guard against. The book in the hands of a clever student might lend

itself to purposes of cramming; and the ground covered in each individual case must necessarily be limited. The first danger is hard to guard against completely, but the extent of ground covered and the number of subjects dealt with should diminish the opportunities for cramming particular subjects. The second point is to some extent met by the provision at the end of each section of lists of references, which are on the whole well chosen, and the series of problems which arise out of the subject matter.

The authors have in their selection of writers covered a wide area, though they have relied mainly on American and British authors, sometimes the former and sometimes the latter predominating. Possibly more attention might have been given to the British literature of certain subjects, such as unemployment. Little use appears to have been made of authors of other nationalities, though extracts from a few, like Professor Gide, are included. The authors do not limit themselves to individual writers, but utilise, as occasion offers, acts of legislation, reports of Committees and extracts from reviews and newspapers such as *The New Statesman*. Their own contribution is chiefly of an editorial character, consisting of the introduction, problems and references of the various sections, but they contribute a few items to the selections.

Workers' Control in Industry is the subject of the detailed investigation carried out by Mr. Miller, and, in fact, his prime purpose is narrower than this title would lead one to suppose. "The primary object of this study is the description and evaluation of the non-Union employee plans developing in America." Thus, whilst the wider aspects of the Industrial Councils movement are kept in view, they are treated primarily in relation to, and as illustrated by, the non-Union type. Other phases of the movement, like its developments in Europe, and the Trade Union type of Joint Council in America, are treated to some extent as subsidiary to the main subject of the work. The book opens with a short but interesting sketch of the history of the former, which is mainly devoted to Great Britain, Germany and Austria; and it is clear throughout that Mr. Miller is fully aware of the importance of all sides of the Councils movement.

His book will, perhaps, have special interest to English readers just because of the contrasts in aims and outlook between the British method and the one with which he is mainly concerned. The British Council movement is essentially based on the Trade Unions, and the Whitley Report aimed throughout at the definite co-operation of employers and Trade Unions in the matter. On

the other hand, in Mr. Miller's words, "there is no doubt that the non-Union Council movement in the United States has been largely an anti-union movement . . . a move which has had as its immediate purpose either the undermining of existing unionism . . . or the avoidance of unionism that appeared imminent" (p. 51). Later in the book he appears to anticipate that the movement will achieve greater success in the latter object than in the former. The movement in Mr. Miller's view has had a considerable measure of success; and has received apparently considerable stimulus from the post-war depression. In one respect the Councils movements have showed close resemblance in the two countries. Each received an enormous impetus as a result of the Labour troubles of the war, and owed much to Government stimulus. In Britain, indeed, this was mainly in the form of persuasion and encouragement, but in America Mr. Miller seems to imply that the War Labour Board sometimes used practical compulsion to secure the creation of Councils. One point of difference appears to emerge from the different character of the two movements. In America the emphasis is on the Council of a single works or plant, whilst in this country the main development has been that of the Council for the whole of an industry. Mr. Miller also adds that the non-Union Councils and the Union "represent two antagonistic principles" (p. 159); but at the same time, his use of the term non-Union appears to correspond most nearly to what is sometimes known in this country as the "open shop." Describing certain war-time Committees, he says (p. 48): "The basis for election was not Union membership: any employees were eligible; therefore in cases where the men were not all organised, the Committees were non-unionist in the sense in which the term is used here."

Mr. Miller's method of treatment helps in many ways to a clear understanding of the problem. The history of the movement in the United States and elsewhere is dealt with in the two opening chapters. Then follow discussions of the Theory of the Non-Union Council Movement, with special reference to its influence on Trade Unionism (Chap. III), and of the results achieved by such Councils (Chap. IV). There are summaries of the organisations established in a number of plants, and a treatment of the results achieved under various headings, such as wages, hours, disputes, welfare and education. The work of Union Joint Councils in the United States is described in Chapter VI. Much of this, especially in local organisation, appears to correspond less to the Joint Council in the British sense than to

the ordinary organisation of collective bargaining and conciliation. But three important national bodies in Photo-engraving, Commercial and Periodical Printing, and Electrical Construction, more closely resemble the British type. Their wide programmes of joint operations recalls that of the most successful of our Councils, that for the Pottery Industry. In these investigations the author has, perhaps, concentrated too much on the actual promoters and supporters of each type, and not enough on the critics. He recognises, however, the allowance that must be made for this, and points out, for instance, that the favourable opinions expressed on the non-Union Council have consequently to be discounted.

The author devotes his last chapter to an examination of the merits of the two types of Council, and his general conclusion is in favour of the Unions. "The Unions have dealt with the same vital problems of industrial management as have the non-Union Councils; . . . they have, on the whole, exercised a more authoritative voice respecting these matters. Moreover, the total accomplishments of non-Union Councils have been insignificant in comparison to the accomplishments of the Unions." This final chapter is a judicious summing up, and the case for both sides is well and clearly stated. The author argues, for instance, on the one hand, that non-Union Councils have special opportunities for stimulating interest in the success of a particular business, and, on the other, that their successes are largely the indirect results of Trade Unionism, since they are commonly established to avoid Trade Union pressure and have to offer improved conditions as a counterpoise to the Unions. As regards the first point, however, it is not clear that similar results are not obtained by Works Committees run on Trade Union lines. The author further emphasises rightly that the local non-Union Council is incapable of performing the wider functions of the Unions in establishing collective bargaining for the whole of an industry. In particular, reference may be made to the protection of the worker against the bad employer.

N. B. DEARLE

An Introduction to the Methods of Economic Statistics. By WILLIAM LEONARD CRUM and ALSON CURRIE PATTON. (Chicago and New York: A. W. Shaw Company. 1925. Pp. 493.)

IT might have been thought to be impossible to find a new aspect from which to view statistical method, in face of the very

large number of text-books which have been published in recent years, and in fact we find here a familiar order of topics (collection, tabulation, diagrams, averages, correlation, series) and familiar methods both arithmetical and algebraic. The partial novelty is the illustration of all methods by statistics relating to business, and in this respect it hardly differs from Professor Secrist's treatise (1925 edition). Within the economic sphere, however, there are many lacunæ; there is, for example, no treatment of population statistics, either generally or of births, fecundity, etc., very little application to sociological problems, and nothing relating to the special problems relating to external trade. The selection of illustrations and topics has been decided by the order of the methodical treatment, and not by their intrinsic importance. Nevertheless, it is interesting to find that so large a number of the methods developed originally for other purposes have direct application to the description of economic phenomena, and also to trace the development of new methods peculiar to the study of events in time, which element distinguishes to a certain degree economic from other statistics.

It is to be regretted that so little space has been given, in a book of such considerable length, to the explanation and discussion of the problems which necessitate the elaborate methods described. Why do we need measurements of dispersion and skewness? Why drag in the normal curve of error? What is the purpose of index-numbers and what their practical application? What does the correlation-coefficient measure? Some answers to such questions can be found, but the appeal is much more to the practice of statisticians than to the reasons for that practice. At the beginning of Part II, where we pass from tabulation to arithmetical methods, we only find, " It is the object of Part II to outline those *analytical* methods of summarisation and interpretation which are most commonly in use, not merely describing those methods, but explaining the assumptions on which their use must rest and setting forth the limitations to their practical application." . . . " One of the commonest summary numbers for a series is the average." There follows a description of the various types of average and a quotation of Mr. Yule's six requisites of a good average. This procedure, which is typical, will not explain to the student of economics why he is invited to plunge into the sea of detail which follows. The conscientious student will also be greatly troubled by the introduction of formulæ and methods for which no justification is given; for example, the principle of least squares is introduced (p. 240) without any explan-

ation of the theory that underlies it, as is the standard deviation of a mean (p. 209). Since many students are not conscientious, there is the danger, illustrated by the existing mass of psuedo-statistical literature, that methods depending on delicate and complex mathematical conceptions will be used in problems to which they are not applicable, by persons who have learnt only the arithmetic of the processes. It needs to be emphasised that those who have not the aptitude or the patience to acquire a thorough basis of the relevant mathematics ought to confine themselves to those statistical processes which depend on purely arithmetical conceptions.

This is not the place to discuss the purely statistical methods used or included; but we may note that the method of moving averages for the smoothing of a series is not introduced in the main treatment of that subject, that Sheppard's corrections are not named in the very brief account of moments, and that the discussion of sampling is limited to the ascertainment of an average, the estimate of a proportion not being mentioned. No discussion of the appropriateness of the geometric mean to index-numbers is offered, and Professor Fisher's factor-reversal test is introduced without any justification for its use.

Though the book is in many respects disappointing, it no doubt fulfils its main purpose, which may be taken to be to give a detailed and methodical explanation of the application of elementary statistical processes to economic phenomena.

A. L. BOWLEY

Economics of Social Problems. By H. A. SILVERMAN. (London: University Tutorial Press. 1925. Pp. 426.)

THIS book is mainly descriptive and is, to a large extent, based on recent Government reports upon what are known as Labour questions, supplemented by various official and unofficial documents put forward by the Labour movement. Mr. Silverman, in fact, accepts the convention that "social problems" or "social economics" means the study of the income and expenditure, actions and grievances of the majority of the working inhabitants of this country.

Beginning with an enquiry into the facts of poverty, based on Messrs. Rowntree's, Bowley's and Burnett-Hurst's investigations, Mr. Silverman proceeds to a discussion of past and present theories of wages, some of which presumably explain the aforesaid facts of poverty. The author, however, owing to

excessive condensation of his matter, becomes somewhat unintelligible when putting forward the marginal productivity theory as the explanation of existing distribution.

There follow descriptive chapters on the minimum wage and various methods of wage payment, on hours and efficiency, and on women's work and wages. Thence Mr. Silverman proceeds to describe the Trade Union Movement historically, and the Co-operative Movement statistically, sandwiching between these a short chapter on industrial unrest and the means hitherto adopted for its prevention.

We go on to discuss unemployment, its cause, prevention and relief, including a useful summary of actual post-war measures to cope with this problem. Next comes an historical survey of the Poor Law, going back to 1601, a chapter on social insurance, and a final chapter on housing, and recent legislation and proposals in connection therewith.

The book, as a whole, has the fault, common to text-books, of covering much too large a field. It provokes, moreover, certain reflections as to the attitude of modern economists (revealed in examination syllabuses as much as in economic writings) towards "Labour questions." Why, for instance, is it a convention that Trade Unionism must always, but the facts of wages hardly ever, be treated historically? Why, also, is it necessary always to summarise theories of wages that are now universally discarded? In other branches of economics dead theories are left to rot, except in treatises (other than text-books) which have a special reason for disinterring them.

Mr. Silverman writes with marked sympathy with the aspirations of the organised workers whose activities he describes. He tacitly assumes that Labour Movements are right until they are proved wrong. This attitude may savour of partisanship, but has the merit of imparting a certain flavour to what might otherwise be a somewhat indigestible mass of information.

BARBARA WOOTTON

L'Œuvre de la Fédéral Trade Commission. Par M. J. WASSERMAN. (Paris: Giard. 1925. Pp. xliii + 573. 50 *fr.*)

THIS is a study of that most recent phase of American legislation relating to Trusts, the Act of 1914, which set up the Federal Trade Commission, and gave it competence to deal both with "unfair trade" in general, and in particular with certain practices scheduled under the Clayton Act of the same

year. That it has been an active body is shown in its annual Reports, its special Enquiries, and the bulky volumes of its decisions. A similar authority was set up in Germany in 1923 to deal with "abuse of economic power," mainly by Trusts and Cartels. Since nothing resulted from the Report of the British Committee on Trusts of 1919, it is of interest to consider whether these foreign activities effect more than is possible under the case-made law of our Courts. In an important article in the *Law Quarterly Review* for October 1925, it was held, on an examination of the ruling cases, that the common law as interpreted here was on the whole favourable to policies and practices that are monopolistic; and the inference follows that some such tribunal as was suggested in 1919 is desirable, in order to deal with monopolistic tendencies from a more economic and less technically legal standpoint. On the other hand, there are those who hold that anti-Trust legislation has meant a great deal of fuss, and that the common law can be made adequate to the situation. Dr. Wasserman's account is an important contribution to the decision of this question. Its most important chapters are those which deal with the influence of the Commission on legislation, notably in respect of the Stockyards Act and the Grain Futures Act. Is there any instrument in this country which could have created the publicity on which this legislation depended? And in addition to the restraints which an administration can now impose on certain doubtful practices, could the remarkable development of "trade practice submittals" have taken place except under the ægis of a statutory authority? By these "submittals" an industry imposes on itself standards of practice, by bringing the question under the review of the Commission. Dr. Wasserman shows that, in spite of much beneficent activity, and the general support of public opinion, the Federal Commission may be endangered by political influence on its constitution. This may be the next phase of the whole question. The power is so great as to require great integrity. But the record of work here shown is so impressive that it would be a disaster if this democratic experiment did not continue to succeed in maintaining "standards" in industry.

D. H. MACGREGOR

Commission for Relief in Belgium. Statistical Review of Relief Operations. By GEORGE I. GAY. *Five years, November* 1, 1914, *to August* 31, 1919, *and to final liquidation.* Stanford University. (California: Stanford University Press. 1925. ix + 81 pp. + 439 pp. and Illus.)

THE authoritative *Statistical Review of Relief Operations,* dealing with the Commission for Relief in Belgium is a notable addition to the literature of the War period. It is based on materials in the Hoover War Library at Stanford. A text of 81 pages, statistical tables of 439 pages, and carefully prepared maps, charts and photographs together present a clear and complete picture of that distinguished and unique manifestation of international control between and among nations at war. "This present volume is mainly concerned with commodity statistics as distinguished from financial accounting. This is not a history of the Commission—which is yet to be written—but a sufficient outline of the operations of the C.R.B. is presented to enable the reader to comprehend its organisation and achievements."

Among the striking features of the work of the C.R.B. was the surprisingly little waste and bungling under dire conditions. The Chairman, Mr. Herbert Hoover, to whose foresight, energy, patience and skill must be given the main credit for this accomplishment, states simply in the Foreword:

"Never was there greater pressure for economy and efficiency upon an organisation. The principal officers of the Commission gave their services without salary. Shipping firms, accountants, insurance agencies, buying agencies thoughout the world gave their services without charge otherwise than the mere out-of-pocket incidentals. The distributing committee of over 55,000 members gave their voluntary services over these many years. Forty thousand Belgian and French women dedicated themselves to the saving of the child life of their nations. . . . The total administrative expenditure was held down to less than one-half of 1 per cent. (exactly 43/100 of 1 per cent.) of the entire operation. The economy of operation in the organisation has, in fact, even a higher standard of test than this, in that the average prices maintained for staple food supplies in this occupied territory during the entire period of war will show from 15 to 20 per cent. less than the prices in the Allied countries at the same period."

This publication deserves the attention of Fellows of the Royal Economic Society partly because of the vital interest taken by the British Commonwealth in the C.R.B. The British Govern-

ment loans totalled $109,000,000, and British private aid amounted to $16,700,000 (both converted at £1 = $4.85), or together approximately one-seventh of the total support. The charity contributions came to 66 per cent. from the United States of America, 32 per cent. from the Commonwealth, and 2 per cent. general; on a *per capita* basis, however, the figures read: New Zealand $1.93, Australia $1.13, U.S.A. $0.33, and United Kingdom $0.13. American support represented 42 per cent. of the total, but it is noteworthy that between November 1914 and the first American Government subvention in June 1917, the British Treasury had advanced to Belgium $160,000,000, which represented half French and half British aid.

The thoroughness with which this volume furnishes exact statistical records and detailed operations stamps it as a model for the tabulation and interpretation of other source materials. With its minute accounts of cargoes, warehouses, prices, and time phenomena it supplements J. A. Salter's *Allied Shipping Control* and other war-time studies. The economist-statistician will be especially grateful.

ELIOT G. MEARS

(a) *Sketches on Railway Policy*. Part I. *Great Britain, the United States and France*. (Published by the Commissariat of Transport. Moscow, 1924. Pp. 250 (in Russ.).) (b) *Sketches on the History of Railway Tariffs of the Union of Soc. Sov. Republics*. Part I. *Grain Rates*. By A. F. ZAYTSEV, Professor at the Leningrad Polytechnical Institute. (Same Publishers. Moscow, 1925. Pp. 282 (in Russ.); bibliography.)

BOOK production in learned subjects in the U.S.S.R. is surrounded by specific conditions under a State publishing monopoly and communistic censorship. It is combined with the necessity frankly admitted by Lenin at the Communist Congress of December 1919, of utilising to the utmost "bourgeois" expert opinion, expressed, in the very literal Latin sense of the word, from and through the members of the State-appointed teaching staffs and advisory boards of the various Universities, Commissariats, etc. One cannot help thinking with sympathy of the writers while one is examining their writings.

For his outline of the railway policy of Great Britain, the United States of America and France the author had to compile his information from foreign authorities. The best possible choice might have been impaired by material difficulties and the neces-

sarily varying knowledge of the actual conditions of transport in the respective countries. Professor Zaytsev's attempt, however, to cover so wide a field is creditable.

The essay relating to Great Britain seems not to be quite up to the standard of the other two. The main characteristics are everywhere stressed with all desirable accuracy, but, on the one hand, a lack of discrimination as regards the sources of information has distorted the proper perspective, on the other hand, a number of misstatements reveal a certain ignorance, excusable in a foreigner, of the actual transport conditions. This could be gathered from a consultation with Mr. W. T. Stevenson and C. E. R. Sherrington, whereas the sections on the U.S.A. and France appear to them less open to criticism as far as technicalities are concerned. The introductory remarks are especially interesting. In his conclusions relating to post-war experiences in France the author has failed to recognise that owing to the depreciation of the franc the rates have remained commonly below the pre-war level. Herein, and not in the scheme adopted recently, lies the crux of the difficulties. The U.S.A. have received on the whole an adequate treatment. One will not be surprised to find that the author's exposition shows that the national policies, both in this country and in America, rest upon principles far superior to the un-coordinated system—an expression we borrow from a paper of Mr. C. Sherrington—of the pre-war decade. To the readers in the Soviet republic the obstinate fighting of organised vested interests recedes almost into the epoch of the mythological epos. The author's dispassionate account under such conditions is almost a feat of honest scholarship, but unfortunately neither in arrangement nor in narration does he equal his foreign forerunners.

We are sorry to say that this remark applies fully also to Professor Zaytsev's history of grain rating in Russia. On this important chapter of modern industrial history the author recounts, principally in the wording of his sources, the contents of the official records which he had some difficulty in collecting. Some of the gaps caused by the Revolution could be filled owing to a gift from the widow of the first Director of the R. W. Department, Mr. Maximov, the author's teacher. The book is adorned with an introduction by the present chairman of the Tariff Committee, Mr. S. Bernstein-Kohan. The Communist officials, at first so eager to destroy the records of the past, gradually revert to it (pp. 246, 250, 254) as far as modes of administration are concerned. They appreciate the industry and patience of the

author, but it will be more laborious for them and every one in general to derive knowledge from the perusal of this book. The style is simple and refreshingly unpretentious when compared with modern Russian writing, the information certainly minutely correct, but the output of words is about ten times what an ordinary reader can bear. A sad impression remains from the reading of the book, notwithstanding a certain dose of perhaps slightly forced optimism. Is Russia really condemned to rotate in a whirlwind of words? It is a positive relief to turn to the U.S. Department of Agriculture bulletins (Nos. 42, 65, and 66, Washington, 1906–8)[1] on Russian wheat. They contain incidentally the important features of Russian grain rating up to 1906, covering in a short and lucid way a ground which Professor Zaytsev exposes in an intricate manner over 196 pages. Referring the English reader interested in the subject to I. M. Rubinow's books, the author of the relevant bulletins, we feel bound to mention that Rubinow's statement as regards "milling rates" (No. 66, p. 94) requires correction (Zaytsev, p. 51). On the whole the Leningrad Professor is in agreement with the Petersburg policy. The introduction of the zone system on the differential principle, in 1889, with reductions made since 1893 in internal trade for moderate distances in order to preserve the local market for the local producer, and reductions in the export trade, meeting the cheapening of Atlantic transportation, with the advantages of uniformity, simplicity, stability and publicity, and an almost complete absence of rate fluctuations notwithstanding the revisions in 1896–7, 1900–1, 1904–6 and 1910—all this appears to have reacted beneficially. The supply for domestic or home consumption was almost steadily increasing, between 1895-1907, from 36·9 to 56 per cent.[2] respectively of the total cereal freights, whereas export was normally fluctuating in accordance with the crop variations,[3] going down from 63 per cent. in 1895 to 43·1 per cent. in 1907 (pp. 202, 209, 224). The only too detailed account of the history of rate making in Imperial Russia does not confirm a favourite proposition of the Marxian historians. With the exception of the Chelyabinsk break, abolished in 1910,

[1] No. 42, Russia's Wheat Surplus (1906); No. 65, Russia's Wheat Trade (1908); No. 66, Russian Wheat and Wheat Flour in European Markets (1908).

[2] This proportion approaches very closely those quoted by Professor Kondratiev, *The Russian Cereal Market*, Moscow, 1923, p. 18, but differs widely from those adopted by I. Rubinow, p. 9 of Bulletin No. 65, even if one excludes the waterways.

[3] Cf. Diagram IX on p. 73 of I. Rubinow's Bulletin No. 66 and Professor Zaytsev's diagrams on pp. 205-7.

and supposed to prevent the imaginary competition of Siberia (pp. 249, 250), not a single instance can be adduced, as far as the rating policy is concerned, of any preponderance of the class of large landowners. Extravagant claims of what one might call a Russian Granger movement—especially in 1895—were repeatedly rejected (pp. 68, 92–118, 141–51, 152, 223). This is a point which, if known to the authors of the latest impressionist book on Russia,[1] would no doubt have attracted their attention.

The contents of the book, in regard to the events subsequent to 1910-11, deserve to be briefly reported. The slight alterations in rates made in 1910 are preceded by a series of interesting figures illustrating the location of the districts supplying Petrograd, Moscow and the foreign customers. A revision of the rates in 1915 enforced in January 1917 proved inadequate owing to the fall of the rouble. During the following three years the rates ceased to be of any importance (p. 239), transportation being commandeered by public authorities of various descriptions. In 1920 a new tariff based on a "natural system" (*sic*) was proclaimed but never enforced; as far as we remember it implied a payment in kind in proportion to the freight. The author tersely remarks: "It is difficult to tell which economic interests this tariff was supposed to serve" (p. 239). On January 1, 1921, transport by rail was declared gratuitous. In a later part of the same year, in connection with the new economic policy readmitting within certain limits private trade, rates were reimposed (July 9) and their making made dependent on the Commissariat for transport. The formula of 1920 being adjusted according to the gradual depreciation of the rouble was reinforced. The Tariff Committee of 1922 produced a new and over-simplified classification of the pre-war tariff. The new stabilised currency has been applied since October 1, 1923 (p. 242). Generally speaking the rates are about 60 per cent. higher compared with the pre-war rates, but the purchasing power of the rouble is about 100 per cent. lower (p. 246). Nothing substantially new has been suggested. Owing to the reduced traffic and a deficiency in statistics, the Tariff Committee is averse to innovations. Unfortunately no details whatever are given as regards the proceedings under the present regime. The author's own suggestions throw a sidelight on the situation.

A. MEYENDORFF

[1] *Vide* O'Hara and N. Makeev: *Russia*. London (Ernest Benn), 1925. With an undeserved Introduction by H. A. L. Fisher, M.P.

NOTES AND MEMORANDA

The Report of the Coal Commission

I

The Royal Commission on the Coal Industry (1925) deserves the congratulations and gratitude of the nation upon the manner in which it has performed a task which was at least as difficult as any submitted to a Royal Commission in recent times. Through no fault of the miners or their employers the mining industry was (and is) threatened with "disaster." In the shipbuilding industry adversity has drawn the two sides closer than they have ever been before; the employers' federation and the federated unions are co-operating in an endeavour to promote their common interests. But in the mining industry adversity has driven the two sides farther apart; the spirit of conciliation and accommodation has been conspicuous by its absence, so much so that, last summer, the appointment of a Royal Commission seemed the only hope for the future. The Commissioners showed moral courage when they accepted the invitation of the Prime Minister, and they displayed wisdom when, in their Report, they advised each of the two sides to give up talking nonsense about the other.

The Commission was faced with the usual task of diagnosing a disease and providing a remedy, and it set about the first part in businesslike fashion. The conditions both of demand and of supply were examined in great detail. In the chapters dealing directly and indirectly with the subject it showed that it was aware of the distinction between the elasticity of demand and a variation in demand due to causes other than a variation in price. The depression in the industry may be mitigated if, under present circumstances, the demand for coal is fairly elastic; and some of the recommendations that are submitted at a later stage are based upon that assumption. But the depression is due mainly to a fall in demand, and the greater part of the fall has occurred in the demand from foreign countries. The explanation of the latter is precisely the same as the one given in the Report of the Balfour Committee on Industry and Trade, which deals with the depression in the general export trade of this country. "The depression in the British coal export trade is, in the main, part of a general

depression, affecting almost all European coal-producing countries; an excess of supply over demand caused partly by the impoverishment of customers, partly by the development of new coal fields, and partly by the increased use of substitutes." (Coal Report, p. 13.) It is also due, to a lesser extent, "to the competition of foreign countries with us in the coal export trade, especially that of Germany." (p. 13.)

These factors have reduced foreign demand to a lower level; they are also presumed to have increased its sensitiveness to changes in prices, that is, its elasticity. The fall in prices following the payment of a subsidy by the State is assumed to have resulted in a fairly substantial increase in demand, particularly from those countries where competition is keenest. Not only has the demand for foreign consumption been reduced, but the use of oil in ships has resulted in a fall in the quantity of bunker coal required for ocean transport. The new and smaller demand is, however, likely to be more sensitive to changes in price; for, as the Report points out, "many steamers are constructed to burn either coal or oil alternatively, and will change from one to the other according to their comparative prices from time to time." It is, therefore, of the first importance that prices should be maintained at the lowest level which is practicable under present conditions.

In the home market the consumption of coal in 1924 was almost as great as in the "boom" year of 1913. The effect of the fall in the demand from the iron industry was largely neutralised by the growth in demand for the generation of electricity and for use in general manufacture. Economy in the consumption of coal may be expected through the growth in the efficiency of steam raising and through the use of substitutes for heating and the provision of power. But the Commission assumes "that such economies as these are not in the long run to the detriment of the Coal Mining Industry; on the contrary, they are likely to be more than offset by the expansion of industry to which they lead." (p. 13.)

I interpret this statement to mean that the utilisation, in the most economical and efficient way, of the energy embodied in coal will immediately reduce the volume of production required, but that ultimately the volume will increase with the expansion of other industries and the growth of population. For some time to come we cannot expect the normal domestic consumption of coal to increase at the same rate as the consumption of energy derived from coal; nevertheless it is important, in the ultimate interests of the community and the industry itself, that we should

press forward with available schemes for economising the mineral and conduct research on a larger scale into new methods of conservation. The object to be aimed at is not so much the most economical method of producing electricity or some other product as " the most economical and efficient way of utilising the energy embodied in the coal. The question is not the co-ordination, as is often supposed, of two industries—coal and electricity; but of several—coal, electricity, gas, oil, chemical products, blast furnaces, coke ovens, etc." (p. 28.) In order to facilitate the achievement of that end the Commission recommends the appointment of a National Fuel and Power Committee, which would co-ordinate the efforts of sectional bodies such as the Electricity Commission and the Gas Council. Such, in brief outline, is the Commission's analysis of the present situation on the demand side, and the conclusions, stated and implied, are, first, that the industry must be immediately reduced in size, and, secondly, that (even after the surplus mines have been closed) we cannot expect its growth to keep pace with the growth of population and general industry in the measurable future. On the supply side there are several factors to be considered. In an admirable chapter on the structure of the industry (and in Annex-Section 3) the Commission submits statistics which show that, other things being equal, the cost per ton of producing coal is lower in large mines than in small mines, and lower in firms controlling two or more mines than in firms controlling a single mine. Age appears at first to be a complicating factor, but it is elsewhere shown (p. 265) to be one of little importance. " Mines employing 3,000 persons and over have, in fact, an average age (thirty-eight years) somewhat below the average of forty-three years for all mines. Those employing from 2,500 to 3,000 persons, however, are well above the average in age; the whole group employing more than 2,500 is just at the average age." The underlying assumption of competitive organisation is that competing firms will emulate the leaders; that in any case they will be compelled, sooner or later, to substitute cheaper for more expensive methods—to get on or get out. It is well known, however, that in every established industry there are many firms which neither get on nor get out, but merely hang on until they are overtaken by cramp. They are prominent in textile and metal manufacture and in engineering. The existence of such a tail is a nuisance to everybody. In coal-mining one finds the same lack of enterprise, and the situation is there complicated by the fact that a mine sunk fifty or a hundred years ago, and equipped with appliances and worked on plans

which, at that time, were the best known to the industry, cannot be modernised so easily and rapidly as a manufacturing plant. A considerable proportion of such mines are, indeed, beyond the reach of modern engineering, and should be closed down.

The second factor is the tendency to diminishing returns. The industry "must fight against physical conditions of steadily increasing difficulty. This fight need never be a losing one; technical progress and wise planning often make it easier now to get coal from a hard two-foot seam, or from 3,000 feet below the surface, than an earlier generation found it to work a six-foot seam at 300 feet; technical progress may bring within reach coal now ruled out as inaccessible and valueless. The fact of growing difficulty remains; the easy coal in Great Britain has long been taken; production is maintained by drawing year after year from greater depths or thinner or more difficult seams." (p. 123.)

The third and last factor is the recent decline, for other reasons, in the efficiency of the miner. The net result of all three factors is revealed in the fact that the yearly output per head fell from 289 tons for the period 1899-1903 to 257 tons for the period 1909-13, 260 tons for 1913, 220 tons for 1924 and 217 tons (provisional estimate) for 1925 (p. 128). The respective values of the output at the average wholesale price level (*Statist* index) for 1909-13 were £144, £112, £125, £120, £106. The following quotation (pp. 129, 130) sums up the situation and provides the key to the remainder of the Report.

"The last two figures in the British table—for 1924 and 1925, the latter based on the first ten months—bring out the difficulty of maintaining in those years a pre-war standard of living for the miner. The real value of his year's work in 1925—what it can fetch in exchange for other articles—is well below not only the value in 1913, but also the average of the five years 1909-1913. Within the limits of what his year's work will fetch the British miner has to live. This is only another presentation of what Mr. Gowers put to us in evidence at the opening of our inquiry—that now seven men are endeavouring to live in mining off the same total output as six had before the war, and are claiming to live as well. They can do so only if the price of coal has risen at least one-sixth more than that of other articles, and it has not done so. This is an account that no good-will and no fine words can balance; the gap must be filled in one of three ways: by a marked rise of coal prices, by better organisation leading to greater output, or by acceptance of a lower standard of living. The first is an event improbable in itself, to the extent required, at any

early date. The second is an achievement for which we may hope, but it must come slowly. The last is a price that may have to be paid, in wages or hours or unemployment." The last may be examined first.

II

The Commission assumes that the urgent need is a reduction in money costs; clearly the ultimate need is a reduction in real or human costs. There are three methods by which money costs may immediately be reduced: namely, payment of a subsidy by the State, an extension of the working day, and a reduction in wages rates. The efficacy of any one (or more) of these is determined by the elasticity of demand. If the demand for coal is extremely elastic, the fall in price will add considerably to the volume of employment, but if the demand is highly inelastic it follows that restriction of output is preferable from the point of view of the industry. On page 10 of the Report, statistics are submitted showing the effect of the subsidy upon the export trade of last year. During the June quarter 12,746,126 tons of coal were exported at an average price of 20*s*. 7*d*. per ton; during the December quarter, when the average price was 18*s*. 5*d*. per ton, the quantity exported increased to 13,252,303 tons. It is, of course, impossible to estimate the probable exports for the December quarter on the assumption that the subsidy had not been paid. Moreover, the average here employed is apparently the arithmetic, not a weighted average. Finally, we are given no statistics of home demand. If, however, the quoted figures are representative of the effects of the subsidy, it may be submitted that the policy of the Government has proved a failure. In spite of the increase in the quantity of exports, the total value fell from approximately £13·1 millions to approximately £12·2 millions, that is, elasticity was less than unity. The total additional quantity of coal exported (and more) was, in effect, presented as a gift to foreign countries. The demand for coal was so inelastic that a policy of restriction similar to that pursued in the cotton trade during a period of depression would have been better than a subsidy. A sum greater than the wages of the additional workers employed was paid out of public funds; if such workers had been paid full wages for doing nothing, and April–June prices had been maintained, we could have paid for a greater volume of imports with the smaller volume of exports, retained the surplus coal as an asset, and saved a considerable amount of public money. The elasticity of demand is clearly a consideration of the first

importance in determining mining policy in the immediate future. The Commission's main recommendation seems to me to be based upon the assumption that, as between the December prices, and prices 3*s.* above these, the demand for coal is fairly elastic, and that a restoration of the pre-subsidy level of prices would be fatal. "The gap between proceeds and costs in mining [1] can in the near future be filled only in two ways: by a sudden contraction of the industry to much smaller dimensions and a rise in prices, or by an immediate lowering of cost of production. Some contraction of the industry is probably inevitable, and, in so far as it can be limited to the closing of definitely inefficient pits, it is desirable in spite of the distress it must cause. The scale of contraction indicated by the figures of losses just given is of an altogether different order from this; it means not the disappearance of the inefficient but *the collapse of an industry.* The second way of filling the gap cannot be avoided. We come reluctantly but unhesitatingly to the conclusion that the costs of production, with the present hours and wages, are greater than the industry can bear." (p. 227. The italics are mine.)

The attitude of the Commission towards the question of hours is clearly expressed. It condemns the proposal to add an hour to the present shift of approximately 7½ hours, but it agrees that an extension of double shifts to those districts in which they are not already the custom "would, as a rule, be an advantage: it is blocked so far as can be seen almost as much by inertia of the employers as by any positive opposition by the men." (p. 176.) What is apparently the main objection to an extension of hours leads (it seems to me) to a fundamental contradiction. If such an extension were to add (as anticipated) one-eighth to the output per man and to reduce costs by 2*s.* per ton, it would also add 30 million tons to output. We are told that there is no market for such an additional output even at substantially lower prices, and that if prices were not reduced 130,000 men would be thrown out of work. Greater use of double shifts, on the other hand, "offers the best hope of absorbing into the more efficient mines, either part of the large surplus now unemployed, or part of those who might be displaced by the closing of the less efficient mines." Surely the purpose of introducing double shifts is to economise effort and thereby reduce costs! The same output would be maintained with fewer people, and the effect would be of precisely the same kind, though it might not be on the same scale, as in the case of an extension of hours. The motto of

[1] The average is 1·47 shillings per ton.

the Commissioners seems to have been, "Reduce real costs, but not too quickly." If they had relied upon the other arguments for retaining the existing day and admitted that what has been said above was an argument against their recommendation, the latter would have carried far greater weight, though I confess that I do not find them convincing. I cannot see why the working day should not be extended by half an hour.

The discussion of the wages problem is, from one point of view, the most unsatisfactory part of the Report. The meaning of some of the statements is so obscure that difficulties were inevitable when the two sides met to discuss future policy. Moreover, the Commission does not appear to have argued consistently to a conclusion. There are three distinct though closely related questions to be answered. The first is concerned with the machinery for negotiating the minimum wage, the second with the nature of that minimum (*i.e.* whether it is to be a national minimum or a district and varying minimum), and the third with its amount. If the minimum is to be a national minimum, the machinery must obviously be the national conference; but if the minimum is to vary from one district to another, the district minimum may be determined either by the district committees or by the national conference. In attempting to disentangle the issues it is desirable to describe briefly the essential features of the wages agreement which has been in force since the industry was released from Government control. The purpose of the agreement is to regulate wages according to a prosperity index: it is emphatically not an attempt to construct a comprehensive system of profit-sharing. The unit of measurement under the agreement is the district; the method of constructing the wage rate for any district may be described by considering a hypothetical case. The revenue (called gross proceeds) of the district is ascertained by adding together the value of the coal produced in a given period, by individual firms. Suppose, first, that the total proceeds amount to £110x. The costs, excluding the remuneration of capital and labour, incurred in producing the coal during that period (say £10x) are deducted from the gross proceeds, leaving a sum of £100x (called net proceeds), which represents the amount available for distribution between capital and labour on the assumption that both sides are able and willing to wait for their return until the results have been ascertained. Suppose, next, that it is agreed to divide the net proceeds between labour and capital in the ratio of 85 to 15. It follows that for the period under consideration the workers actually employed would

be entitled to £85x. If the wages prevailing in 1914 (called the standard wage) for the same group of workers amount to (say) £50x, they would be entitled to a wage amounting to 70 per cent. above the 1914 standard. If, therefore, the events of the period could have been exactly foreseen, the workers might have been paid that rate, which would have represented the wage-bearing capacity of the industry during that period But it is impossible to forecast events with accuracy; moreover, the workers cannot afford to wait until the results for the period have been ascertained. Consequently it is arranged that the ascertained wage (70 per cent. above standard) for that period shall be paid to all the workers employed in the district during the period following the ascertainment of those results. It will immediately be evident that the individual firm is not guaranteed any profit: its own profit will depend upon the usual factors. Moreover, the total net profits (*i.e.* after deducting losses, if any) for the district do not usually amount to the supposed share of capital—£15x in the above example. On a falling price level they are less than that amount, and, on a rising price level, greater than that amount. Taking the period covered by the two agreements of 1921 and 1924, capital has received considerably less than was anticipated.

The ascertained wage, which only roughly measures the capacity of the industry, is called the economic wage: I shall call it the fluctuating wage, thereby avoiding the danger of begging any question. The agreement further specifies that under no circumstances shall the fluctuating wage fall below a prescribed minimum, which is now $33\frac{1}{3}$ above the standard or 1914 wage. If the proceeds are insufficient for the purpose, the losses entailed in paying the minimum are deducted from the next available surplus. Such is the nature of the present agreement. I have used hypothetical figures in relation to the fluctuating wage in order to avoid complexities which do not affect the principle.

When the agreement of 1921 was under consideration the general level of prices and wages was far higher than at present. Although the coal boom was already a thing of the past, few people anticipated so long and severe a depression and so rapid and heavy a fall in the general level of prices and wages. It was assumed that, as in the past, the coal industry would share in the general industrial expansion. For that reason attention was concentrated upon the principles governing the fluctuating wage; the minimum wage was regarded as being, in the main, of academic interest, and was fixed at 20 per cent. above the rate of 1914. But the fluctuating wage fell rapidly, and in one district after another

the minimum was reached. When the agreement was under review the industry was enjoying a temporary boom due mainly to the French occupation of the Ruhr; the fluctuating wage again rose, and the miners were able to push up the minimum to its present level and to secure advantageous modifications in that part of the agreement affecting the fluctuating wage. After the new agreement came into force, in 1924, the effects of the boom rapidly passed away and the wages in practically all the districts fell to the new minimum. But even at that level they proved to be an intolerable burden in many places, and the losses to be set against future surpluses rapidly increased. It was obvious that, even if trade recovered, the minimum wage would remain the effective wage for a considerable period. Failure on the part of the two sides to adjust their differences last summer led to the grant of a public subsidy and the appointment of the Coal Commission. In view of the developments to which reference has been made it was obvious that what would really matter was the recommendation of the Commission on the subject of the minimum wage, which, on the Commission's own showing, is likely to remain the effective wage for some time to come. The rest of the Report was expected to prove important, but the matter with which it dealt did not possess the same degree of urgency.

The Commission, in its Report, draws attention to the need for emphasising the distinction between the fluctuating wage, which is the effective wage under normal conditions, and the minimum wage, which has been, in fact, the effective wage in most districts during the last two years. Moreover, it distinguishes clearly between the general minimum wage and the subsistence wage, which is guaranteed under all circumstances to low-paid workers. The former is the lowest wage which should be paid to workers of varying degrees of skill in order to prevent an undue fall in the standard of living. *The Commission states, again and again, that it should be paid irrespective of the economic conditions of the industry for the time being.* But it adds that the present minimum is too high. Miners' wages are compared with those prevailing in other industries and the wages of to-day are compared with the average wages paid during the last five years of peace. As the result of that comparison the Commission finds that the average unmarried miner could maintain what is, in the circumstances, a reasonable standard of living upon a lower minimum. For the married miner with children the lower weekly wage would be supplemented by a "family allowance." [1] So far the path

[1] An article by Professor Macgregor, on this highly controversial subject, appeared in the March issue of this JOURNAL.

is clear, and it seems to lead to a recommendation in favour of a national minimum wage, upon a lower level than the present wage.

But as we proceed we encounter difficulties. On page 146 we are told that the minimum wage is "intended to guarantee, not bare subsistence, but for each class of worker a certain standard of living, differentiated according to his skill or responsibility." It does not follow, however, that it should take the form of a uniform percentage advance upon the 1914 rates. In the first place, "the year 1914 was not typical, in respect either of wages as a whole or of the relative position of different districts." (p. 149.) In the second place, "it is reasonable to admit actual differences in real wages, *i.e.* in the standard of comfort between different districts, as we have to admit them in other industries and in agriculture." (p. 149.) The relevance and strength of the first argument is obvious, though the necessary adjustments may be made in the standard rate rather than the percentage, and may therefore also be made without impairing the strength of the national machinery. The relevance of the second is not so obvious, for, first, differences in real wages (as well as in mining conditions) are already reflected in the basic rates, and the argument is only relevant to the extent that the relative positions of the districts have been materially changed since 1914; secondly, in so far as the latter change is due to changes in the fortunes of the mining industry itself, it is at least questionable whether it constitutes a sufficient justification for a varying (percentage) minimum. We tend to prolong the existence of inefficient mines by reducing the wages of those employed in such mines without correspondingly reducing the wages of those employed in better mines.

A similar departure [1] from the first conception of a minimum wage is implied in the following quotation (p. 228): "We find no escape from the giving up of this minimum of 1924. That does not mean simply a return to the minimum of 1921, *i.e.* a uniform reduction of 10 per cent. on the present minimum percentage. In some districts less may be needed, in others more. It will be for the mine-owners and the miners to carry out by negotiation the necessary downward revision of district minima." Among the considerations which should govern the revision, the first two relate to the wage-bearing capacity of the industry in each district. The Report continues: "What we here contemplate is not a permanent lowering of wage standards but a temporary sacrifice by the men

[1] Readers may be invited to compare pp. 134 and 146–8 with pp. 227–8 and 236.

in the industry, other than the worst paid, in order to avoid the possible unemployment of hundreds of thousands of them." Again, we are told that "The main result of the table . . . is to show the unsuitability of any simple procedure like a return to the 1921 minimum or any other minimum fixed by uniform percentage on the year 1914. Greater reductions are almost certainly needed to give any chance of equilibrium in the exporting districts, and smaller ones would still leave a profit elsewhere." (p. 291.) Reference has already been made to the difficulty of expediting the death of uneconomic mines if wages are to be reduced for their sakes alone, and to the question whether the Commission has not over-estimated the elasticity of demand between the prices of the December quarter and prices 3*s.* above those prices. What it is important to note at this stage is that the minimum wage is no longer a wage which should be paid irrespective of the economic conditions of the industry, but a wage which is definitely related to the capacity of the industry while continuing to employ the existing number of employed workers. And it is this subtle change in the meaning of terms that lies at the root of the difficulty now (April) being experienced in forcing the two sides to come to an agreement on the basis of the Report itself.

Moreover, it has led to further ambiguity in dealing with the machinery to be employed in negotiating a new agreement regarding the minimum wage. The following quotation (p. 152) has an important bearing on that point: "We do not see how such a [minimum] wage, in a community so small and so closely united as Great Britain, can ultimately be fixed by other than national authorities. To give a free hand to each district to settle its own standard of living without consultation and without regard to any other, is to expose the standards of the more efficient and prosperous areas, on which the future of the country rests, to undermining by the weaker areas; it opens the door to 'cut-throat competition between different districts at the expense of wages.' We conclude accordingly that the minimum percentage for each district should be settled or at least approved by agreement between bodies representing all the employers and all the workpeople in the industry. This does not mean that the minimum percentage for each district may not with advantage be discussed in the first instance by district associations, if *they think fit,* provided that the minima thus provisionally agreed are afterwards submitted for approval by some national authority." (The italics are mine.) Emphasis is here clearly

laid upon the national conference as the appropriate authority for fixing the new minimum. But on page 230 the Commissioners state (and the Mining Association has taken action on the statement) that it appears to them " a reasonable course for the national conference to refer the question of minimum percentage and such matters as they think appropriate to district associations to frame proposals. Those proposals would be submitted to the national conference for approval." This change in procedure seems to me to be due to the change that has crept into the meaning of the minimum wage. Moreover, the latter change appears to have cast a mist over the body of the Report. An agreement on the lines of the recommendations would penalise the relatively inefficient firms at a time when the fluctuating wage was above the minimum (for the new basis of ascertainment would stiffen up that wage, while the delay in recovering past losses would maintain the fluctuating wage above the minimum for longer periods than under the present agreement), but would give a form of preferential treatment to the same firms when the minimum wage was the effective wage. But other parts of the Report imply that a relatively high minimum wage is desirable in order to accelerate the speed with which the inefficients are squeezed out, or at least that the (percentage) minimum should not be jeopardised by their desire to maintain their existence. The Commission clearly meant that the minimum should be effectively controlled by the national authority, that it should be reduced, and that district adjustments should be allowed in so far as these were necessary to the removal of those accidental inequalities, as between one district and another, which existed in the 1914 rates adopted as the standard from which subsequent changes were made. But they also suggested that the minimum should be adjusted in the poorer districts to the extent necessary to make it an " economic " wage in relation to the former normal production of those districts. In so doing, after defining the minimum as the wage to be paid irrespective of economic conditions, they were guilty of serious inconsistency. Moreover, to make the minimum wage itself a fluctuating wage in each separate district is to destroy the basis of the old agreement. So much may be said without prejudice to the merits of the twofold discussion whether a minimum wage should be wholly and finally divorced from the financial state of the industry, and whether the negotiating authority should be the district committee or the national conference.

III

I can refer but briefly to the discussion of the reorganisation of the industry, part of which is concerned with the problem of nationalisation. Witnesses had appeared on behalf of the Miners' Federation, and submitted a scheme which combined State ownership with so-called "democratic control." The Commission experienced no difficulty in showing the impracticability of the proposal, which revealed the usual Anglo-Saxon partiality for committees. No scheme involving the separation of power from ultimate responsibility, under contract, will bear examination. But when the Commission elaborates the arguments upon which it bases its rejection of any form of nationalisation it seems to me to be less successful. In the first place it assumes that the complexity of the industry is an adverse factor. "We believe that in the future coal-mining will be found to have become an integral part of a great industrial complex, which will comprise also electricity, smokeless fuel, gas, oil, chemical products, blast furnaces, and possibly other activities. But these are features which make the mining industry particularly unsuitable for conduct by the State. Standardisation, to any marked extent, is impossible. Mining is less uniform even than other producing industries; far less so than distributive or transport services, or than such a service as the generation and supply of electricity. Its results are uncertain and indeed speculative. A willingness to experiment and a readiness to take risks are essential."

This argument is of doubtful validity. The economies that have been achieved through integration need not be lost if the coal-mining industry were nationalised. It would be sheer folly to nationalise the steel industry in its narrow sense, that is, the process of converting iron into steel. Modern plants are often so constructed as to enable the iron to be conveyed in liquid form from the blast furnace to the steel furnace; the steel ingot is conveyed, while still hot, from the sand-pit to the re-heating furnace and afterwards rolled into bloom, billet or bar. The semi-manufactured product is taken direct to the finishing mills and rolled into plates, rods or some other product. From the engineering point of view the first three processes may now be regarded as one industry, and the nationalisation of the second process would inevitably mean either the nationalisation of the first and third or the loss of important "engineering" economies. This consideration is not relevant to mining, and quarrying.

Coal-mining is physically distinct and separate from all the industries which utilise coal; integration merely means unity of financial control and the economies that are achieved differ from those "engineering" economies which are available in metal manufacture. Coke-oven and by-product plants, for example, are constructed either by mine-owners at the pit-head or by iron-manufacturers near the blast furnace. Even if the coal-mining industry were nationalised there appears to be no reason why privately owned coke-ovens should not be erected in future, as in the past, near the pit-head. The real or absolute economies that are enjoyed at present would still be available, even though the relative advantage (if any) now secured by unity of control were lost. Thus the apparent complexity of the industry does not seem to be a factor of importance. The remaining arguments against nationalisation, which are relevant and strong, may be applied with equal relevance and strength to other exporting industries.

In the second place, the Commission assumes that there are only two alternatives worthy of consideration, namely, private enterprise without State participation and a State monopoly. But there are at least two other alternatives. The State might either nationalise one coal-field, leaving the others to be exploited by private firms, or purchase and operate representative mines in different areas. It is to be regretted that these alternatives were not examined. Experience would have served as a guide. The Mines Department submitted a memorandum on the Westphalian coal syndicate in which but scanty references were made to the Prussian State mines. Sir Richard Redmayne, in his evidence, made a few vague remarks upon the latter, which have had experience both as competitors against and as members of the syndicate. No further information appears to have been supplied regarding this valuable experiment. Again, in dealing with retail distribution the Commission recommended that municipalities should be empowered to compete with private firms, and thereby showed that it was not an uncompromising opponent of public enterprise in the sphere of competitive industry. If it had further recommended that in suitable circumstances the State (or some other public authority) should enter the mining industry as a competitor, it would have accepted the corollary of its own recommendation regarding the retail trade. Competition from the State and other public authorities is not unknown even in this country: the Admiralty competes (though not on the open market) with private shipbuilding firms; the Stationery Office indirectly competes with printing firms;

municipalities compete with private firms in the supply of gas and electric stoves and fittings; at least one municipality owns a farm. If the State owned the railways it would also compete with firms engaged in the construction of wagons and locomotives.

The Commission, however, preferred to rely entirely upon the resources of private enterprise. It has not written in terms of admiration of the results of the system of private enterprise in the past; on the contrary, the weakness of that system is revealed in a manner which should satisfy even its bitterest opponent. The references to housing conditions, to the lack of amenities and to the slowness of progress in the sphere of equipment, planning and organisation, should carry weight with those responsible for the future control of the industry. But experience has also shown what private enterprise, at its best, is capable of doing, and the main purpose of the constructive proposals is to accelerate progress by universalising what is best and, at present, rare. The proposals are the outcome of the analysis of the supply side to which reference has already been made, and are intended to quicken the tendency to increasing returns. The elimination of uneconomic mines will be hastened by the maintenance of a relatively high minimum rate of wages. The Commission expects to reduce industrial unrest through the institution of a compulsory profit-sharing scheme. This is a revolutionary proposal which, if carried into effect, will create an administrative problem of the first magnitude. As I write I recall the days when I was a member of the wages department of the Ministry of Munitions, and witnessed the difficulties involved in wages control. The present proposal will create many such difficulties, as well as other difficulties due to the need for defining capital. The latter are avoided in the existing wages agreement for the simple reason that the remuneration of capital is expressed as a function of wages; but already the increasing use of machinery, such as electrically driven coal-cutters and conveyors, is creating doubt as to the equity of that method of calculation.

The Commission favours amalgamation on the part of mine-owners, and prefers voluntary action to compulsion on the part of the State. It has been criticised for its presumed lack of courage in this respect, but the critics seem to ignore the difficulties involved in compulsory amalgamation. Such a procedure would make "risk-taking" too risky, and destroy the foundation of the system of private enterprise. If the State determined the nature of the risk which was to be taken it would quickly be called upon to accept the risk itself. The Commission

also favours the formation of cartels or selling syndicates of mine-owners; presumably these are to be on a comparatively small scale relatively to the home market and comprehensive for the export trade (p. 291). They will not destroy competition on the market, but substitute a new and more strenuous form of competition for the old and more leisurely form. In short, it would make what is now best the representative method of organisation. If that end could be achieved the industry of this country would not only prove a stronger competitive unit in the markets of the world, but also fulfil its obligation to the British public. It can hardly be said, however, that the public is optimistic. The constant pressure of relatively high and standardised wages is more likely to achieve that end, as far as mining is concerned, than any set of recommendations to the Mining Association, which is not a commercial organisation. If similar recommendations were submitted for (say) the steel rail industry through the Employers' Federation, the latter body would reply that it was a matter not for a wage-negotiating authority but for the Steel Rail Syndicate, which is a commercial organisation. This case does not provide an exact parallel to the one under discussion, but it illustrates the difficulty created by the fact that the unit of organisation is not the same for the purpose of dealing with labour as for commercial purposes. Apparently the Mining Association has no authority in the matter, and to secure that adequate pressure is brought to bear upon individual mine-owners, who prefer independence on a small scale to junior partnership in a larger business, is a problem the solution of which will call for statesmanship of the highest order. The ownership of minerals will provide the State with a useful weapon, and this fact alone seems to justify the recommendation that the mineral should be nationalised.

This review has been largely concerned with those statements which seem to me open to criticism, and may convey a false impression. The Report is so long, it was written so quickly, and general statements about the same branch of the subject appear in so many places, that inconsistencies were almost inevitable. It is unfortunate that such inconsistencies crept into the discussions of the problems that are most urgent. The Report as a whole is, however, a monument of industry, impartiality, and ability; one not only marvels at the rapidity with which the Commission performed its task, but also feels that the Prime Minister was thrice fortunate in his choice of members.

J. H. JONES

A POSSIBLE CAUSE OF CYCLICAL UNEMPLOYMENT

IT is a point in favour of the modern economist that he recognises to a far greater extent than his predecessors did the importance of "disturbing factors." Many of the fundamental assumptions of the classical economists—as, for example, that as to the perfect mobility of capital and labour—have been so qualified that their practical significance has become very much restricted. Competition itself, the animating principle of the individualist system, is seen to work haltingly and fitfully and to be subject to limitations imposed not by custom or the will of man, but which are inherent in the nature of things. More especially is this true of industrial competition.

To that form of competition—*e.g.* the competition between dealer and dealer—which results in an equality of price for the same goods in the same market at the same time, economists give the name of commercial competition. On the other hand, that form of competition—*e.g.* the competition between producer and producer—which tends to equalise the costs of production for all producers is known as industrial competition.

Industrial as distinct from commercial competition is notable as possessing inertia. It is slow to respond to changed conditions. Hence, under the dynamic circumstances of modern industry, its incidence is subject to great variations. Sometimes it lies dormant and in the background; at other times it waxes into great activity, with astounding repercussions upon industry. The writer's thesis is that it is these periodical variations in the force of industrial competition which are primarily responsible for that ebb and flow of commerce and employment which is known as the trade cycle. The argument in support of this view will now be expounded more fully.

The improvements which are being more or less constantly introduced into manufacture ordinarily result in a continued fall in the average cost of production of manufactured articles of the same quality. This fact is often obscured by changes in the value of money; but as a rule the statement holds good if the cost or expenses of production are assessed in labour-units or even in terms of real money, that is, purchasing power.

The reduction in cost is, of course, generally tantamount to an increase in the efficiency of labour. The adoption of new methods and new machinery enables a given number of workers to produce a larger quantity of goods without extra effort on their

part. Conversely, a given quantity of goods can be produced by a fewer number of workers.

In these circumstances it is evident that the only policy which could ensure full employment would be one of continuous price-reduction. In some cases even this might not attain the desired end. If the reduction in price failed to induce an adequate increase in consumption, workers would be liable to be thrown out of employment or put on short time. In view of the elasticity of demand for most manufactures, however, there would be little likelihood of this happening on a large scale, so long as prices were always lowered to correspond with the expenses of production.

The important question now arises : in actual fact, are prices always lowered in this way? The answer is in the negative. Sometimes falls in cost are immediately reflected in prices, at other times they are not; a great deal depends upon the severity or otherwise of competition at the time. In so far as manufacturers' prices are regulated by supply and demand, so long as effective demand remains constant a lowering of prices can only come about through intensified industrial competition resulting in an augmented supply.

During a period of reviving trade, industrial competition is only partially effective—consequently there is an increasing margin between the normal or average expenses of production and manufacturers' prices. In other words, profits are increased both absolutely and relatively. Bearing in mind what has been said, it would seem that this increasing disparity between costs and prices necessarily spells unemployment for the workers either now or in the future.

The high profits characteristic of booming trade find their way to a large extent into the investment market and are ultimately capitalised. The advent of this new capital into manufactures must inevitably result in more production and therefore in more competition between producers, that is, in more industrial competition. The increasing supply of goods brings prices down, and so the boom period comes to an end and a "cyclical depression" takes its place. Curious, is it not, how high prices and high profits turn round, boomerang-like, and compass their own destruction?

Of course, at any period unusually large profits in certain trades will tend to attract more capital from other less favourably situated industries, and in this way a levelling influence is always being exercised in some measure. This indeed is the normal working of industrial competition, which is, however, at least

equalled in importance by the abnormal form just referred to. Both forms require time for their effective operation.

But the foregoing is not in any sense a complete description of what occurs during a normal trade cycle consisting of a boom and an ensuing depression. If it were a complete description, unemployment would be greatest during the period of high prices and high profits and least during the period of low prices. Actually, of course, the reverse is the case. Why?

For an answer we must look to the administration of credit. Credit may be here regarded as stored-up money or purchasing power. Hence, the banks can, by releasing credit, stimulate the demand for commodities, while by restricting credit they can reduce demand. And this very largely apart from the normal economic influences affecting supply and demand.

Now the chief recipients of bank credits are manufacturers (or other producers) and merchants. Bank supplied purchasing power, it is true, finds its way into all pockets; but it is the two classes mentioned with which the banker has personally to deal and which constitute his principal customers. Hence, when they are prosperous he will be free with his credits, and when they are relatively unprosperous he will be correspondingly reluctant to grant them advances. As bankers are alleged to be somewhat temperamental creatures, fluctuations in business profits may, by their indirect effect upon credit, produce results which may entirely overpower the direct effects. Thus, rising profits which might tend of themselves to reduce the demand for consumable goods may actually increase demand, by encouraging the bankers to release more purchasing power in the form of credits.

This, it may be imagined, is what actually takes place during the early years of a trade boom. Improvements in manufacture lower the cost of production; but industrial competition is not sufficiently strong at the moment to enforce a corresponding reduction in real prices. This state of affairs would result in a decrease in employment were it not for the circumstance that the high rate of profit (implying good security for the time being) encourages a great expansion of credit, which in turn results in increased effective demand and increased consumption. Unemployment on a large scale is therefore not experienced until credit is restricted.

Such restriction may be dictated by the state of the cash reserve at the banks, or it may result from an actual or impending fall in business profits, through the advent of increased industrial

competition in the manner previously described. In any case the immediate effects are the same. Demand fails and unemployment and short time become the rule. Prices fall, as also do profits and wages. These continue to fall until after a lengthy period equilibrium between demand and supply is re-established, generally at a lower *real* price level and with a larger output.

Improvements in manufacture, however, soon result in futher reductions in expenses—reductions which are not adequately reflected in current prices. Industrial competition has largely spent its energy in the preceding cycle. Profits begin to mount and credit re-expands. But sooner or later credit has to be restricted. Demand then fails once again, with the inevitable consequences: low profits, low wages, bad trade and bad tempers all round. And so the trade cycle keeps repeating itself.

The writer is chary of suggesting any remedies for trade fluctuations, as the theory outlined is a tentative one and many points still await investigation. We have seen that even without any credit system the irregular working of industrial competition would alone tend to cause unemployment. Does the expansion and contraction of credit merely translate that unemployment from high price periods to low price periods, or do credit variations themselves cause additional unemployment? Until this question is answered it is not easy to say whether any suggested changes in banking policy can be of much use in regularising employment.

To say the least, considerable doubt is thrown upon all such proposals. After all, bankers are only guilty of expanding credit when their customers' security is good and of withholding credit when the security is bad; and how can any banker be expected to do otherwise? To what extent bankers are responsible for exaggerating fluctuations in business security has yet to be determined.

It may be observed here that if industrial competition, hitherto working slowly and inconstantly, could be speeded-up so as to be equally and intensely in operation at all times, general trade and credit fluctuations of the type with which we are familiar would probably disappear. There is little indication, however, that existing economic tendencies are in the direction of such a speeding-up.

But where economic tendencies are unavailing, determinate human effort may possibly be successful. If every producer and distributor were to cut prices on every possible occasion (trusting to the increasing turnover to ensure a normal profit), and to do

this voluntarily and not to wait until competition enforces such action, the problem of the trade cycle with its associated unemployment might be solved immediately. Whether the existing individualist system will admit of such a solution remains to be seen. Enough has been said to emphasise the importance of the question.

JAMES SOUTHWORTH

NOTE ON THE PAPER BY PROFESSOR S. N. PROCOPOVITCH ON THE DISTRIBUTION OF NATIONAL INCOME

IN his important and interesting paper in the March number of the ECONOMIC JOURNAL Professor Procopovitch has overlooked the detailed analysis of British incomes contained in the 64th Report of the Commissioners of Inland Revenue. In this official publication on pp. 112, 113 an estimate is given of the approximate distribution of incomes for the year 1919-20 of all inhabitants of the United Kingdom having more than £130 of income. I propose in this note to apply the method of Professor Procopovitch to this estimate and to compare it with the Prussian figures given by him.

The method I have employed is to start from the bottom of the table in the 64th Report and work upwards. The last nine rows (dealing with incomes over £10,000) combined give 10,300 persons, or ·022 per cent. of the total population, with an aggregate income of £241 millions. The next row gives 16,720 persons, or ·036 per cent. of the total population with an aggregate income of £115 millions. And so on. In this way the whole of the figures in the first three columns of my table are accounted for. The next column is then worked out on the same lines as Professor Procopovitch. For this purpose I have taken his figure of £84·6 as the average income for that year per head of the population of the United Kingdom, which he calls the "budget unit," and I have expressed the average income per head in each section as a multiple of this "budget unit." This produces column 4 in my table.

There is, however, in the 64th Report an exceedingly important note relating to an item of £260 millions described as "other income." It is there explained that two-thirds of this consists of the actual income of companies which though charged to income tax is not distributed to shareholders in dividends. This income is in reality the property of the persons who own shares in these companies in proportion to their holdings, and for a complete analysis of incomes it is necessary to add the requisite quota for

each section of the population. No precise data are available for doing this, but a rough estimate sufficiently accurate for the present purpose may be made if the following propositions be admitted: (1) the undivided quota of any section will be roughly proportionate to the income actually received by that section from investments; (2) the incomes of persons over £10,000 per head are nearly all investment incomes, while below that a larger and larger proportion of earned incomes is included; (3) the distribution of estates as shown on p. 31 of the 64th Report supplies an indication of the income from investments of different sections of the population. The actual figures I have used amount to taking the quota of undivided income as an addition of 21 per cent. to the income shown, for the section of persons whose income exceeds £10,000, 18 per cent. for incomes between £2,000 and £10,000, 16 per cent. between £1,500 and £2,000, 13 per cent. between £1,000 and £1,500, 10 per cent. between £600 and £1,000, 6 per cent. between £300 and £600, 4 per cent. between £250 and £300, $2\frac{1}{2}$ per cent. between £200 and £250, 1 per cent. between £160 and £200, $\frac{1}{2}$ per cent. between £130 and £160. Adding these quotas to the original figures of aggregate incomes, column (5) in my table is produced and column (6) is derived from it in the same way as column (4) from column (3).

The fifth row in my table embraces the first four rows, and gives the wealthiest section of the population up to ·195 per cent. In column (7) I have set against this the corresponding figure obtained from Professor Procopovitch's table (by addition) for the section of the Prussian population up to ·2 per cent. The next row, giving for the United Kingdom from ·195 to ·29 per cent., I have compared with the Prussian figure for ·2 to ·3 per cent., and the next row with the Prussian figure for ·3 to ·5 per cent. The eighth row, which comprehends all those that precede it and includes the whole section of the population up to ·5 per cent., is compared directly with the result for the same section of the Prussian population. The ninth row, dealing with from ·5 to 1 per cent., is again directly comparable. Finally, the last two rows, giving the sections from 4·9 to 9·3 per cent., and 9·3 to 17 per cent. for the United Kingdom, have been compared with the Prussian figures for from 5 to 10 per cent., and from 10 to 20 per cent. respectively.

Opinions will probably differ as to whether column (4) or column (6) of the figures for the United Kingdom are more strictly comparable with the Prussian figures. For my own part, though I am satisfied that column (6) represents more nearly the true facts as to British incomes, I do not know enough about the

method by which the Prussian figures are obtained to say whether or not they also should not be subjected to similar accretions.

In either case a considerable degree of similarity is presented by the British and Prussian figures; and if column (6) is selected the comparison becomes astonishingly close. Thus the number of budget units received by the richest ·2 per cent. of the population in the United Kingdom is shown as 84 against 91 for Prussia. For the section from ·2 to ·3 per cent. as 23 in each country. For the section ·3 to ·5 per cent., 17 as against 15, and for ·5 to 1·0 per cent. as 10 against 9·7. A noticeable difference occurs, however, near the bottom of the table, where the Prussian figures give a considerably larger number of budget units owned by the better class workers than in this country. As the budget unit is an *average* income, this would seem to indicate that the earnings of the lowest paid workers (which do not appear in the table) are larger in proportion here than in Prussia. If this be so, is it due to the existence of a large low-paid agricultural class in that country?

Three subsidiary points remain to be mentioned:

(1) Professor Procopovitch himself publishes certain figures for this country, which he refers to as "England." Quite clearly he uses the term loosely to cover the United Kingdom.

Incomes in United Kingdom, Year 1919–20.						Prussia.
Number of Persons.		Income as shown in tables.		Income including quota of undivided reserves.		Roughly corresponding figures.
In thousands. (1)	As percentage of total population. (2)	Aggregate in Million £s. (3)	Per head in budget units. (4)	Aggregate in Million £s. (5)	Per head in budget units. (6)	(7)
10·3	Up to ·022	241	275	291	333	
16·7	·022 to ·058	115	81	136	95	
37·8	·058 to ·140	130	42	152	47	
21·9	·140 to ·195	55	25	65	30	
89·7	Up to ·195	541	70	644	84	91
44·4	·195 to ·29	76	20	88	23	23
98·4	·29 to ·5	118	14	133	17	15·2
232	Up to ·5	734	37	865	43	47·4
222	·5 to 1·0	169	9	186	10	9·7
660	1·0 to 2·4	264	4·7	280	5	
411	2·4 to 3·3	111	3·2	115	3·2	
751	3·3 to 4·9	165	2·6	169	2·6	
2031	4·9 to 9·3	355	2·0	358	2·0	3·0
3490	9·3 to 17·0	480	1·6	491	1·6	1·8

(2) Professor Procopovitch's estimates of aggregate income and population for this country are in my view both too low. Population was probably nearer 47 millions than 46 millions in 1919–20, and the income in that boom year I should have put at considerably more than his £3900 millions. On the balance the budget unit would exceed £84·6. I have thought it better, however, not to change the basis of calculation and have used his estimates in these matters. Any alteration such as I have suggested would somewhat reduce the figures given in columns (4) and (6) in my table.

(3) It must not be forgotten that the larger British incomes were in the year 1919–20 subjected to particularly high income tax and super-tax. The figures shown in the tables are for gross incomes before the deduction of these direct taxes. In any comparison between this country and Germany or between different dates for this country this fact is important and must be borne in mind; but at the same time the effect of the high taxes on beer, tobacco, tea and sugar in reducing the effective incomes of the working people will also have to be taken into account.

F. W. PETHICK-LAWRENCE

RECENT OFFICIAL PAPERS

Report by the Food Council on Short Weight and Measure in the Sale of Food-stuffs. 1926. (Cmd. 2591.) 9*d*.

THE Committee find that "except as regards coal, bread, and tea, no legislative enactment applicable throughout the U.K. exists for the specific purpose of preventing short weight and measure." A number of tests have shown that short weight or measure occurs to a degree sufficient to call for legislation protective of both sellers and buyers, such as exists in all the Dominions and the U.S.A. Hence a series of important recommendations, whereby short weight or measure will become a statutory offence, and special regulations will apply to scheduled articles of food.

Report to the Secretary of State for Dominion Affairs of the Inter-Departmental Committee appointed to consider the Effect on Migration of Schemes of Social Insurance. (Cmd. 2608.) 6*d*.

THIS Committee was appointed in November 1925 to consider how far the recent social legislation of this country may have tended to discourage migration to the Empire, and in what manner any effects adverse to migration can best be counteracted.

In their Report they discourage the idea that the policy of Empire Settlement arises out of any theory of over-population, or of difficulties experienced in absorbing in industry the natural growth of population. The purpose, in their view, is simply development, and the best distribution of population, with a view to stabilising industrial conditions throughout the Empire. While they do not think that accurate figures can be quoted of persons proceeding for *permanent settlement* abroad, they regard it as fairly clear that total migration from this country is less than before the war, and as certain that it has not increased as the result of the Empire Settlement Act.

Other factors than those coming within their special reference are shown to be relevant to this result. The general evidence is to the effect that migration and settlement are highest in times of trade prosperity, or of recovery from depression; because of the exceptional demand then in new countries for labour, and the flow towards them of capital. The years before the war were therefore favourable to migration, the present is not. While this contention is based on the migration movements of forty years, and the authority of Giffen, it raises obvious questions of relative prosperity that deserve examination. And in that connection the quoted opinion of the Prime Minister of Australia, that *assured markets* are a requisite of colonial immigration, is obscure; are not migrants themselves a market anywhere? The factors more specially hindering migration at present are given as the rise in the home standard of living, urbanisation which lessens through specialisation the adaptability required of emigrants, and the conditions under which assisted passages can now be obtained.

The Committee examine the effects of social legislation in detail. Analysis of the *unemployment* figures shows that the majority of the unemployed are persons who have prospects of returning to their own normal occupations. For this and other reasons there are limits to the number of unemployed who can be regarded as available and suitable for migration. Juvenile migration has been specially hindered by the importance to family income of either their earnings or their Benefit. And only in one State in the Empire is there any provision for Unemployment Insurance if they migrate. As *Poor Law Relief* would rarely give more than unemployment benefit, it cannot be considered a restriction in itself. As regards *Health Insurance*, no effect is probable, since "the average healthy person who would be acceptable as a settler" scarcely attaches much importance to his

health benefits. The loss on migration of an *Old Age Pension* may, however, be a deterrent; and so also of widows' pensions.

The Committee put aside any remedy through continuance of insurance overseas for migrants. Something may be done by reciprocal schemes and exchanges. But the most important practicable research is in respect of payments of "surrender values" where any such may have accumulated, as is the case where the risk insured is one which increases with age. There is ground, however, for only one small payment in this respect. Persons already in receipt of benefit, such as pensioned widows or certain old age pensioners, might be granted on migration a lump sum equal to one year's pension. The emphasis of the final recommendations is on Reciprocity of Social Schemes, publicity, and the training of juveniles in rural occupations.

D. H. MACGREGOR

Committee on Industry and Trade. Survey of Industrial Relations, based on material mainly derived from official sources. With an Introduction by the Committee. (Stationery Office. 1926. Pp. 497. 5*s.* net.)

THIS "Survey" is the second publication of the Balfour Committee on Industry and Trade. It consists mainly of papers supplied by the Departments concerned, and gathers into one volume a great deal of information which has hitherto been available in dispersed sources. The Committee have reviewed the whole of this information in a concise Introduction. The result is a valuable and authoritative handbook on the whole range of matters dealing with the social relationships in industry. The first chapter deals with the growth and relative distribution of the industrial population. The second, on Wages, presents the information on the progress of rates, distinguishing the expecting and the "sheltered" industries; on the adjustment of rates to the cost of living; on systems of payment in the chief industries, and family allowances; and on certain international comparisons of "real" wages. The third chapter deals exhaustively with hours of labour, their regulation at home and abroad, and with the "welfare" movement. A critical study of the unemployment figures is given in the fourth chapter. The fifth chapter, on "Machinery for Industrial Negotiation," includes an interesting appreciation of the profit-sharing movement, and of the question of compulsory arbitration in Australasia. The relevant statistics are brought together in the last chapter. The

volume is intended to be descriptive, and to precede the conclusions of the Committee's evidence on the situation it represents.

D. H. MACGREGOR

THE COLLÈGE DE FRANCE

I HAVE noticed that the names "Sorbonne" and "Collège de France" are frequently misused by foreigners, and a statement of their correct meaning may be of interest to readers of the ECONOMIC JOURNAL.

The Sorbonne is the name formerly borne by the University of Paris, in memory of its founder, Robert de Sorbon, priest and confessor to King Louis the Saint, in the middle of the thirteenth century. To-day it is a purely historic and honorific title given to the building which houses one-half of the University, *i.e.* the Faculty of Letters and a portion of the Faculty of Science.

The Collège de France is not a constituent part of the University of Paris. There is much misconception on this point, and even the ECONOMIC JOURNAL prints "University of Paris" after my name in the list of correspondents in which I have the honour to be included. I was indeed a member of the University of Paris as long as I lectured in the Faculty of Law, but I migrated to the Collège de France four years ago.

The Collège de France was founded by Francis I. in 1530 (it will shortly celebrate its 400th anniversary), not only as an institution independent of the Sorbonne, but actually in opposition to it. The Sorbonne was conservative and theological, with Latin for its sole medium of expression; the new foundation was intended to be a centre of free and secular education. This opposition between the teaching of the two institutions has, of course, ceased to exist, but the Collège de France retains its autonomy, and is distinguished from the University of Paris by some remarkable, though generally little-known, characteristics. They are as follows :—

(1) The Collège de France has no examinations, nor does it confer any diploma or certificate. Attendance at lectures is thus entirely optional. There are courses, such as those lately given by Monsieur Bergson, for which the largest hall is inadequate; on the other hand, there are highly specialised lectures which attract but a small audience, and there are some where the only listeners are the Professor's would-be successors.

(2) The Collège does not insist on the possession of a University Degree for its professors; a candidate for election need not be a Doctor, or a Master or even a Bachelor of Arts. The only necessary qualification is distinction in some branch of human knowledge—preferably in the newer branches, in the sciences in process of formation.

(3) The Chairs are not permanent and can be changed on the death or retirement of a Professor if there is no candidate of sufficient distinction available. Hence every vacancy evokes a host of candidates, who stream in from the four cardinal points of the scientific compass. The ideal aimed at is always to have the right man in the right place, which frequently involves a change of place when there is occasion to change the man.

(4) The Professor-elect is established for life; there is no age limit of any kind, though I imagine no one would be appointed under twenty-one, and no compulsory retirement. And as there is no difference between the Chairs and no hierarchy, young and old meet at the Collège on a footing of perfect equality. When a Professor feels himself too old or too tired to do full work he takes on an assistant, whom he engages on his own responsibility and without any intervention on the part of the Collège other than a purely formal vote of confirmation.

The Collège session begins in December and ends in May. Each course, therefore, with its two hours a week averages about thirty lectures in the year. It is considered undesirable that teaching should absorb too much of the Professors' time—a common fault in the University.

When I stated that the Collège de France was autonomous, I meant that it was not under the jurisdiction of the Rector of the University, at present an eminent Greek scholar, M. Maurice Croiset. The administration is in the hands of one of the members elected by the Collège, who bears the modest title of Administrator, and whose chief duty consists of presiding at meetings. The Collège is, however, under the control of the Minister of Public Instruction. When a Chair falls vacant the Collège is bound to propose two candidates, and the final choice rests with the Minister, who has, moreover, the right to create new Chairs and to appoint to these whomsoever he may think fit.

In France centralised government is so much the rule that this degree of independence in a great seat of learning occasions

considerable surprise. Not long ago the Minister of Public Instruction in a speech announced that measures would be taken to bring the Collège de France within the framework of the University. But M. de Monzie has already been superseded, and we may presume that the menace which hangs over this famous institution will not materialise for a long time to come.

CHARLES GIDE

Paris.

OBITUARY

SIR PAUL VINOGRADOFF

LAW is a study which has always made an international appeal, and the University of Oxford has had good cause to be grateful to teachers of Law who came to her from other lands. Far back in history the names of Vacarius and Albericus Gentilis mark the debt she owed to Italy. But the greatest, perhaps, of all her teachers of Jurisprudence came from a further land.

Paul Gavrilovich Vinogradoff was born in Kostromo, in 1854, and became a student in the University of Moscow. His historical training owed much to Mommsen's Seminar in Berlin. He used to say that his first interest in England in the Middle Ages came through Sir Walter Scott. It is not quite clear by what steps he was first led to study the English manorial system, but the subject was one of natural attraction to a Russian scholar who had been a small boy in the year of the emancipation of the serfs, and who had watched the village community, the *Mir*, adjusting itself to the new conditions. As he said himself, "Questions entirely surrendered to antiquarian research in the west of Europe are still topics of contemporary interest to us." It is clear, too, from his own writings that he was following with the closest attention the Romano-Germanic controversy through the pages of Kemble, Maurer, Freeman, Stubbs, Gneist, Nasse, and Maine.[1] At last he plunged into the fray, to throw the clear light of his stern historical training upon the problems of the English village community.

It was in 1884 that he came to England upon his first visit, in search of materials for his classic work on Villeinage. There his chance meeting with Maitland resulted in a close friendship, and in a remarkable widening and deepening of the work of

[1] Vinogradoff's association with Liebermann, whose great work on the Old English Laws was so closely connected with his own investigations, came comparatively late and was in no sense a formative influence.

both men. The outline of this friendship is sketched with charm and sympathy in Mr. Fisher's all too brief life of F. W. Maitland. From 1884 to 1903 Vinogradoff was building up a remarkable international reputation, and visiting England at frequent intervals. He became Professor of History in Moscow, and did valuable work for education, at all its stages, in his own country. Ultimately, however, he resigned his position, in which he had adopted an attitude more independent than was politic, and came to England, a quasi-exile, but a thrice-welcome guest. In 1903 he was appointed Corpus Professor of Jurisprudence in the University of Oxford. Apart from his amazing knowledge of comparative Law, and his firm belief in the "historical method" of Sir Henry Maine, his contributions to the legal and economic history of England alone would have justified a Professorship; few men have made their Professorships more fruitful. More than a dozen degrees were bestowed upon him by European Universities, and he was a member of almost every learned society in the world connected with Law, History, or Economics. He lectured frequently in America, as well as throughout Europe, and was greatly interested in a visit to India. In the last weeks of his life he was made Doctor of the University of Paris—*honoris causa*. So far as was possible, he retained his connection with Russia, only to see his hopes repeatedly disappointed. His work during the war was devoted to creating a better understanding between his native and his adopted countries; his knighthood in 1917 was a recognition of his services in this respect.

The interaction between Vinogradoff's work and Maitland's is extraordinarily interesting. Each man owed an infinite debt to the other. Vinogradoff widened the horizons and re-inspired the enthusiasms of Maitland; Maitland served Vinogradoff less visibly, but no less truly, in interpreting to him the queer twists in the English mind, by which he might guess that "the English believer in free village communities would very probably be a Conservative," while the foreign observer would wish to label him a Liberal; Maitland served him also in aiding the actual production and presentation of his earlier works. Maitland was a far more brilliant writer and lecturer, but owing to his ill-health and early death he left no "school" behind him. Vinogradoff usually wrote as if merely to convey what he had to say. The vivid interest he displayed in conversation did not quite "get through" on paper. But he was emphatically a great teacher. A list of his written works, even such as comes at the call of

memory alone, would fill a long column, and they are absolutely indispensable to the student of Law or History. Yet it was in his Seminar, perhaps, and in his personal intercourse with other scholars that his greatest work was done.

The Seminar was a somewhat strenuous discipline. "The young men in Oxford do not love the higher education," he would say, in moments of disappointment. Yet he had always a small, keen band of students prepared to follow his lead through Celtic manorial custom, or the Year Book MSS., or the Salic Law, or the economic statistics of Domesday Book. Some of them had learned from his friend, Charles Bémont, in Paris, the meaning of the "higher education" in Vinogradoff's sense, and warmly welcomed the extension of the Seminar method to Oxford. Others of his pupils came from over-seas. Among the Rhodes Scholars he found congenial additions to his little band. More than one came from the remoter regions of Cambridge or London.

He cared nothing for preliminary ignorance, if only the student had some fixity of purpose, some capacity for work. Pretentious work was the only thing on which he was severe. He could hand back a paper with the curt comment, "This is all to do again," but it was never the beginner nor the diffident who was thus treated. He had a not altogether unfounded contempt for certain types of reviewing in this country. After a particularly inept attempt of a reviewer to deal facetiously with a piece of serious scholarship, he remarked, "You will think me very rude, but I call it an example of the stupidity which you *cultivate* in England." Inadequate published work provoked his ire. "It is a mistake, it is a failure, it is a *sin*," was his summary in one case, and, finally, with a lapse into the colloquialisms which he never quite mastered, "He is a bad gent!"

Nevertheless, his appreciation, when it came, was generous and genial. "If Maitland were alive, he would be very glad," was sufficient reward in itself. "Nurse well these papers, they are worth nursing," is a farewell that sticks in the memory of a student.

The Maitland Library, established in Oxford in memory of the great Cambridge scholar, formed also a tribute to the unique work of Vinogradoff, and something of a home for many of his pupils.

To estimate his contribution to Economic History is to essay a difficult task. Vinogradoff had both encyclopædic knowledge and a sociological outlook. "Jurisprudence," he remarked in beginning his lectures on Roman Law in Mediæval Europe, "is

a branch of Natural Science." It is not, perhaps, untrue to say that Law was always his predominant interest, but his interest in Law was due to his interest in actual conditions, primarily of his own countrymen. Law, with all its complex questions of status and privilege, throws light upon immediate practical problems. Economic conditions, in their turn, are the background upon which Law develops, through which Law is moulded and changed. Vinogradoff's chosen definition of Law gives full weight to this interaction. It is to him "a set of rules imposed and enforced by a Society with regard to the attribution and exercise of power over persons and things." [1] As Vinogradoff's studies touched wider and wider fields, his interest in economic conditions strengthened, and he grew more and more ready to stop and consider the influence of forest or vineyard, fens and downs upon the development of free or servile status, or the final emergence of small-holders and great landlords. Consequently it is hardly possible to disentangle his work in Economic History from his treatment of Jurisprudence or the History of Law. Some attempt, however, must be made to isolate his work on English manorial history, and the mediæval Land Law, where his contribution to Economic History is the most conspicuous.

His earliest work, *Villeinage in England*, was projected and begun in Russia; it deals with the Manor in the twelfth and thirteenth centuries—that is, in the comparatively static periods, in the centuries which are best represented by Customaries and Chartularies, many of which had been printed in the Rolls Series, and were therefore accessible in Russia. But Vinogradoff never contented himself with the accessible. His first visit to England saw him exploring the resources of the Public Record Office to an extent hitherto unknown to any English worker in this field. The Cambridge University Library, the British Museum, the Bodleian and some private collections furnished further spoil.

Villeinage in England met with a warm reception, in which the most generous voice was Maitland's. "Essay I is superb," he wrote; "by far the greatest thing done for English legal history"; and again, "You are putting things in a new light, that is all: if 'the darkness comprehendeth it not,' that is the darkness' fault."

Vinogradoff was greatly interested, not alone in Seebohm's *English Village Community*, but also in his later work on Celtic Custom, and Anglo-Saxon Tribal Law, and Customary Acres, although he was very critical of his conclusions.

[1] *Common Sense in Law*, p. 59.

While Maitland modified the conclusions of the pure "Germanists," as much by his psychological insight as by his knowledge of continental feudal law, Vinogradoff, with his yet wider knowledge and international sympathies, refused to be content with any exclusive view. To him the English manor was the result of a confluence, in which Celtic, Roman and Germanic elements all combined to form the main stream of English social life. This is the text of his second important work on this subject, *The Growth of the Manor*, which takes villeinage back to its origins, and brings it again to the end of the thirteenth century. But the crucial date in manorial history is 1066, or 1086, just as the crucial document in the history of almost any manor is the Domesday Book. Vinogradoff therefore set to work again upon this most cryptic of all English records, and produced a comprehensive survey of *English Society in the Eleventh Century*—a synthetic commentary upon land, people, and methods of Government and administration. Perhaps the most noteworthy new element in this work is his insistence on the importance of a strong Scandinavian element in the Dane-Law before the Conquest, which might readily be mistaken for Norman influence.

Vinogradoff's most masterly excursion into the realms of Land Law is, however, to be found in an earlier article on Folk-land,[1] in which in a few pages he settled a perennial dispute, half political, of the English historians, by the simple expedient of going direct to the sources, without prejudice, and analysing the only three mentions of Folk-land available. Many years later he returned to the subject of Book-land, and in a paper only too little known[2] he carried on Maitland's investigations from the seventh and eighth centuries to the tenth, and came to the conclusion that Book-land just previous to the Norman Conquest constituted a flexible and convenient form of transferable property in land, the loss of which, under the invasion of feudal ideas, was a retrograde step.

Vinogradoff had little admiration for the Norman Conquest; in the Land Law, in the Marriage Law, and in the development of the Manor, he considered that it introduced alien conceptions, and substantially hindered the development of a healthy form of indigenous society. Indeed, Vinogradoff's historical influence, although he was so ready to consider every contribution to the building up of English life, was eminently conservative. Roman Law and Celtic custom must have their due, but no more than their

[1] *English Historical Review*, 1894.
[2] Mélanges Fitting. (Montpellier, 1907-8.) P. 499.

due. The scales always came down ultimately on the side of the "Germanist." Law to him was essentially custom, and he was primarily interested in the Manor as a village *community*; every bit of evidence of communal action, communal bargains or contracts, and communal justice roused his keenest sympathy, as did every survival of archaic symbolism in manorial custom. He never himself worked in detail at the more dynamic period of manorial history, the fourteenth and fifteenth centuries, but it was in discussing these periods with his Seminar, or with individuals, that his keenest interest in economic history displayed itself. The process of commutation, the influence of early enclosures, questions of wages and the Statutes of Labourers, evidence of depopulation, or the reverse, the causes of the Peasants' Revolt—all found in him an eager and illuminating critic. The point which he selected as all-important in the voluminous evidence of the Winchester Pipe Rolls was the proof of a steady increase of capital in the hands of the villeins during the fourteenth century. Men who could and did pay Entry Fines of £5, £10, and even £20, before 1381 were not likely long to bear the burdens of serfdom. Moreover, this widespread accumulation of capital, immune from foreign wars or attacks, laid the foundations, he considered, of England's wealth even more firmly and indissolubly than the progress of the merchant.

At yet another point Law led him back to Economics; his study of the early history of the Law of Contracts, and his interest in the "parol agreements" of the great fairs, to which attention was drawn by Maitland, brought him to the development of commerce in the fourteenth century, and the growth of the Law Merchant, as well as back again to Villeinage.

In his later years it was perhaps mainly as an editor that Vinogradoff displayed his zeal for purely economic history. He was convinced of the value of economic records; "even the cocks and hens may be important," was his warning to a slightly wearied student of Ministers' Accounts. Hence in his series of *Social and Legal Studies* he aimed at linking together in each volume (in a somewhat uneasy partnership, it is true) a separate study in each field. In this way he produced monographs dealing with Gascony and its mediæval vineyards; the Abbey of St. Bertin and the *hospitagii* of its reclaimed forest lands; the English monasteries on the Eve of Dissolution; the English Poor Law in the seventeenth and eighteenth centuries; the estates of the Bishop of Winchester in the fourteenth century; Manorial Structure in the Dane-law; the general subject of Mediæval Rents and Dues;

the disposition of lands in Northamptonshire in the seventeenth century, and, finally, the social and legal effects of the Barons' War.

In his British Academy series he aimed at publishing on a large scale records of Social and Economic History, interpreted in a broad sense. He was, perhaps, particularly enthusiastic about the *Denbigh Cartulary*, with its wealth of evidence of Welsh manorial custom, which was edited by his own Seminar; or Miss Neilson's edition of the *Fleet Terrier*, with its valuable treatment of the inter-commoning of a fen district. He included in the series the records of St. Augustine's, Canterbury, and a great collection of materials relating to the Dane-law; at his death he had arranged for three forthcoming volumes—a Kentish Estate Account Book of the seventeenth century; the records of the Templars' lands in England, and a collection of materials illustrating the legal and economic history of the estates of St. Alban's Abbey.

The list alone illustrates the range of his interest; the quality of that interest was known only to his pupils. His conception of Law was emphatically realist; he had little concern with legal maxims or treatises, or with legal logic, save as they bore directly upon life. Hence he took keen pleasure in tracing through these economic materials the reaction of facts upon Law. The discovery of a document in which a free man in the late thirteenth century contracted to become the lord's villein, not only as regarded his holding, but "in body and in goods," and then sealed the document with his own seal, drew from Professor Vinogradoff a series of delighted chuckles—"What *would* old Bracton have said?"

It was this realist outlook that made him so great a teacher; although he surveyed so vast a world, he had always time for the cocks and hens. He bore his learning without pedantry and without pretension. Although he never used fine words to describe his own outlook, it is impossible to look back upon his work without calling to mind the description which both he and Maitland delighted to quote:

"When I think thus of the Law, I see a princess, mightier than she who once wrought at Bayeux, eternally weaving into her web dim figures of the ever-lengthening past—figures too dim to be noticed by the idle, too symbolic to be interpreted except by her pupils, but to the discerning eye disclosing every painful step, and every world-shaking contest by which mankind has worked and fought its way from savage isolation to organic social life."

Such was Vinogradoff's belief, and to him the solid warp upon which the many-coloured tapestry was woven was the economic condition of the people.

It falls to the lot of few men to be mourned as an irreparable loss by scholars throughout the world, and by pupils and disciples, men and women, in Russia, in England and in America. The second generation of his disciples is taking up his work again in Moscow. It behoves universities more happily situated to see to it that he has in them also a living monument, even as he himself helped to build the monument to Maitland.

A. E. Levett

Professor Lilian Knowles

The announcement of the death, on April 25, 1926, of Professor L. C. A. Knowles, at an early age, and after an operation which at first promised her complete restoration to health, will cause profound regret to all those who had ever come into touch with her powerful and enthusiastic personality. Her death marks a turning-point in the history of the London School of Economics, with which she had been associated almost from its beginning. She was amongst the youngest of that generation of teachers and writers whose co-operative labours have created the living tradition of the institution and built up its reputation as a centre of learning. No one, probably, was ever more in touch with its constantly changing student body, or more beloved of it; she held a unique place among her colleagues, whom she alternately roused, exasperated, amused, cajoled and always influenced. It will be hard to replace so vivid and strong a personality: so flashing and yet tough and painstaking a mind.

Born in 1870, Miss Tomm, as she then was, went up to Girton in 1890, taking the Historical Tripos in 1893 and Part I of the Law Tripos a year later, being placed in the First Class in both examinations. On going down, she read law for some time in Sir Frederick Pollock's chambers, and began her association with the London School of Economics in 1896, when she was made a Research Scholar. For a time she taught at University College School, under the Headmasterships of Dr. Paton and Dr. Spenser. In February 1904 she was made "Appointed Teacher" in Economic History in the University of London. A Readership in the same subject followed in December 1907, and she became Professor in July 1921. She was Dean of the Faculty of Economics and Political Science—an honour she greatly appreciated—

between 1920 and 1924. She was a member of the Departmental Committee on the Cost of Living of the Working Classes in 1918, and served as a member of the Royal Commission on the Income Tax in 1919. She became a member of the Council of the Royal Economic Society in 1912 : a compliment to herself and to her sex which she enjoyed, though, to be frank, she cared little for economic theory. In 1906 she obtained the degree of Litt.D. from Trinity College, Dublin, and when Cambridge degrees were made available to women, took the M.A. and LL.M. degrees, unconcerned by the thought that some of her younger women colleagues regarded this step as the acceptance of an unholy compromise with which she, as a leader among University women, should have had nothing to do. She married in August 1904 Mr. C. M. Knowles of the Home Office, who had been a student of hers. Her husband and her only son survive her.

The main intellectual influence in her life was the late Archdeacon Cunningham. With him, and for him, she worked on the later editions of the *Growth of English Industry and Commerce*, and his generous appreciation of her assistance will be found expressed in his Preface, dated August 1903, to Part I of the section dealing with "Modern Times." Successive generations of her students will recall her vivid appreciations of Cunningham, not only as teacher and historian, but as a devoted and self-sacrificing parish priest. But if from Cunningham, and more remotely from Schmoller, she learnt the lesson of constant and unremitting toil and the patient study of original authorities, she added something, and that not a little, of her own. She possessed, to a much fuller extent than her master, the power of imaginative generalisation. Great as her knowledge of the detail of modern economic history was, it was subordinated, in her mind and in her presentation of the subject, to certain leading ideas, which added greatly to her power of influencing her students and of giving them a grasp of the significance of history.

As a teacher, and especially as a lecturer, she was superb. Teaching and lecturing gave full scope to the dramatic powers of her nature, and these, combined with utter absence of self-consciousness, her wit, her mastery of the subject and complete conviction of the rightness of her standpoint, her vitality and her physical presence, enabled her completely to dominate her audience. Academic calm and the cool weighing of issues would be sacrificed, unhesitatingly, to some phrase which would fire her hearers.

"Horror and scorn and hate and fear and indignation," the

whole range of human emotion, would be touched by a master's hand. Such powers as hers could easily have been abused: this, at least, is true of her, that whilst she did not pretend to be impartial, she would state the other side as sympathetically as she could, and would leave it to colleagues of another way of thinking to correct the deficiencies of her presentation. So, Imperialist and Protectionist as she was, with a fine contempt for economic theory and the subtleties of politic debate, she yet won the devoted respect of students who usually did not agree with her, and the admiration of colleagues who were occasionally, at any rate, the object of her scorn.

That this was so was due to the circumstance that she was greater than her theories. She was, to begin with, passionately devoted to the interests of her students, and no differences of political opinion, of race, of colour, or of religion (and on all these matters she held strong opinions not always tactfully expressed) stood for one moment in the way when it was a question of helping them in their work or in their careers. A strong character herself, she was, secondly, an admirable judge of character in others. She could weigh, accurately and fairly, temperaments and intellects with which, emotionally, she had nothing in common. Lastly, she identified herself, heart and soul, with the institution in which she played so outstanding a part. She backed her views, her subject, her students and her college with equal passion, humour and impetuosity, and would stick at nothing, from blandly deceiving a heresy-hunting female during the War, to fighting an unsympathetic Chairman of a Board of Studies, if she thought that the interests of "the School" demanded it.

With the exception of an early work [1] in a field which could not have been very congenial to her, her publications, apart from occasional articles and reviews and her contributions to the "Big Cunningham," as she delighted to call it, dated from recent years. This is not surprising. A heavy round of morning and evening lectures, the care of many research students, long terms, incessant examinations and the necessity of accumulating raw materials for lectures on themes the scope and literature of which were rapidly expanding, made up her busy professional life. It was the necessity of providing textbooks in connection with the establishment of the new London Commerce degree which ultimately resulted in the writing, in rapid succession, of the

[1] *The Referendum in Switzerland. Translated from the French of Simon Deploige by C. P. Trevelyan and edited by Lilian Tomm.* London: 1898. P. S. King & Son.

Industrial and Commercial Revolutions in Great Britain during the Nineteenth Century (1921) and the *Economic Development of the British Overseas Empire* (1924). Competent pens have already discussed these works in the pages of this JOURNAL,[1] and nothing in the way of critical comment will be attempted here. It is at least clear that these two books broke new ground and revealed the author's power of generalisation and her learning. But to those who knew her these books will also be a lasting memorial of their writer, for almost every page will serve to recall to them her very turn of phrase, her characteristic outlook on life, her philosophy, her passions and her prejudices.

T. E. G.

CHARLES HUBERT OLDHAM

THE study of political economy in Ireland has suffered a heavy loss by the death of Professor Oldham, which took place rather suddenly on the 20th of February. Charles Hubert Oldham was born in Dublin in 1859. Entering Trinity College in 1879, he graduated with great distinction in 1883, obtaining senior moderatorship and gold medal in Mathematics and Mathematical Physics, and also senior moderatorship and large gold medal in Experimental Physics and Chemistry. He was called to the Bar in 1890 and practised for five years. In 1895 he was appointed Barrington Lecturer in Political Economy, a post which he held for six years. In 1901 he was appointed principal of the Rathmines School of Commerce, and, on the foundation of the National University in 1909, he became professor of Commerce in University College, Dublin. On the death of the late Professor Kettle in 1917 he was transferred to the chair of National Economics, which he held till his death.

Oldham's writings, which were mostly on Irish subjects, would, if collected, form a large volume. He was a constant contributor to the *Journal of the Statistical Society of Ireland* and the *Journal of the Institute of Bankers in Ireland*. He devoted particular attention to Irish public finance, and at the Portsmouth meeting of the British Association in September 1911, he read a paper in Section F on the Public Finances of Ireland which attracted a good deal of notice. The Congress called by the Royal Economic Society in 1912 to consider the financial relations between Great Britain and Ireland was opened by a paper by Oldham. Other studies on Irish economic subjects appeared in

[1] ECONOMIC JOURNAL, XXXI. p. 229; XXXV. p. 113.

The Economist, the *Oxford Survey of the British Empire*, and in Thom's *Directory of the Manufacturers and Shippers of Ireland*. His contributions to this JOURNAL included articles on *Industrial Ireland under Free Trade* (Vol. XXVII. p. 197) and *The Public Finances of Ireland* (Vol. XXX. p. 61).

Oldham was a most painstaking and indefatigable worker. Nothing was a trouble to him where his students were concerned, and his lectures represented the result of much personal investigation and research. For many years he was a very active member of the Dublin Statistical Society, of which he was elected vice-president in 1908 and president in 1925. His death will be keenly felt by his colleagues and students as well as by a large circle of other friends.

GEORGE O'BRIEN

CURRENT TOPICS

THE Council of the Royal Economic Society have appointed D. H. Macgregor, Drummond Professor of Political Economy in the University of Oxford, to be Joint Editor of the ECONOMIC JOURNAL in succession to the late Professor Edgeworth.

WE announce with much regret the deaths of two of the most eminent economists of the older generation—Professor G. F. Knapp and Professor Knut Wicksell, both of them in ripe old age. We hope to publish some further account of each of them in the next issue of the JOURNAL.

THE following have been elected to membership of the Royal Economic Society :-

Abraham, J. S. B.	Cossar, J.	Holliday, W. B.
Adams, A. A.	Davies, I. W.	Holroyd, G. H.
Aggarwal, K. D.	Dennis, A. S.	Ibbotson, A. E.
Amery, G. D., M.C.	Donavour-Hickie, L.	Johnson, G. F.
Anderson, B. R.	Droulias, C. A.	Jones, G. T.
Bennison, J. J.	Duncan, J. F.	Joyce, C. A.
Bhalla, R. L.	Fisher, Dr. A. G. B.	Kintzley, C. Scott.
Bickley, J. H.	Gandhi, M. P.	McFadyen, W. E.
Browitt, Rev. C. C.	Graham, The Rt. Hon. W., M.P.	Metcalf, H. E.
Bull, Miss A. F.		Morris, E. J.
Clayton, H. R.	Guy, W. T.	Narasimhan, D.
Cole, Prof. A. H.	Hirst, I. H.	Neill, J. L.

O'Brien, Dr. G.
Peat, H.
Plummer, W. T.
Ramaswami, M. S.
Rau, B. R.
Riddington, C. R.
Riley, D. W.
Robinson, F. H.
Rogers, E.
Rugless, J. A.
Saunders, A.
Scotland, J.
Sen, Prof. Mani M.
Sengupta, J.
Sengupta, S.
Sheppard, C. L.
Singh, Chain.
Sokkar, M. A.
Southworth, J.
Stock, M.
Tripp, H. P.
Tweedy, I. M.
Waghray, H. L.
Whitehead, H. G.
Williams, A. V.

The following have compounded for life membership :—

Kiong, C. I.
Kirton, W. P.
Mills, Prof. R. C.
Morris, W. H.
Ogilvie, Prof. F. W.
Pearsall, C. W.
Pearson, C. R.
Rao, T. Ramachandra.
Rau, B. Ramachandra.
Sen, Prof. Mani Mohan.
Singh, Chain.
Stock, Mario.
Watt, Rev. L. S. J.

The following have been admitted to library membership :— Manchester Public Libraries; Pomona College, California; St. Andrew's University, Fife; Universitetets Statistiske Laboratorium, Copenhagen; University College of Southampton.

We record with regret the deaths of the following Fellows of the Society :—

Professor Lilian Knowles	(elected 1912).
Professor C. H. Oldham	(„ 1911).
Sir John Rotton, LL.D., K.C.	(„ 1890).

THERE has recently been founded a new Economic History Society, the objects of which are (*a*) the promotion of the study and teaching of Economic History, and in particular (*b*) the issue, not less often than once a year, and if possible at shorter intervals, of an *Economic History Review*. (*c*) The establishment, by conferences and by such other means as may be deemed expedient, of closer relations between students and teachers of economic history. (*d*) The representation of the interests of economic history, and the statement, when desirable, of the needs of its teachers, to the governing bodies of educational institutions. (*e*) Co-operation with other organisations having kindred purposes, such as the Royal Historical Society, the Historical Association and the Royal Economic Society. All persons interested in the study and teaching of economic history are

eligible for membership and the annual subscription is 10*s.* 6*d.*, payment of which entitles a member to receive one copy of the *Economic History Review* per year. Officers of the Society, as provisionally constituted, are Sir William Ashley (President), Professor W. R. Scott (Vice-President), Dr. Eileen Power and Dr. F. W. Tickner (Hon. Secretaries), Mr. J. A. White (Hon. Treasurer), and the Council will include Professors Gras, Stenton, Ogilvy and Rees, and Messrs. Daniels, Lipson, Vere Laurence and Tawney.

The *Economic History Review* will be under the editorship of Mr. E. Lipson and Mr. R. H. Tawney, assisted by an editorial council. The general aim of the Review will be threefold: to provide a medium for the publication of articles on economic history; to supply a critical account of the more important literature of the subject in different countries by means of bibliographical studies of different periods and movements, as well as by reviews and review-articles; and to serve as an organ through which the teachers and students of economic history can maintain relations with each other and discuss their common problems. Contributions from foreign scholars will be welcomed, and it is hoped to keep in touch with the work done abroad by means of corresponding members in different countries.

Those interested are asked to communicate with either of the Hon. Secretaries, Dr. Power, London School of Economics, Houghton St., Aldwych, W.C.2, or Dr. F. W. Tickner, Coopers' Company School, Tredegar Square, E. 3, or with the Hon. Treasurer, Mr. J. A. White, 43 Dora Road, S.W. 19, to whom subscriptions may be sent.

THE growing interest in the study of the economics of the agricultural industry has now led to the organisation of a society by those engaged in this work, for the promotion of mutual interests. *The Agricultural Economic Society* has as its object the encouragement of the study and teaching of history, statistics and sociology in relation to the agricultural industry and agricultural communities. The first General Meeting of the Society was held at Oxford on March 24, 1926. Particulars of membership can be obtained from the Hon. Secretary, Mr. S. J. Upfold, Agricultural Economics Research Institute, Parks Road, Oxford.

OUR Dutch Correspondent writes :—

"On March 8, 1926, after a crisis of nearly four months, a new Cabinet was formed by Jonkheer de Geer, Minister of the Interior and Agriculture in the outgoing Cabinet, who has now taken over the department of Finance. The significance of the former Cabinet, formed in August 1925, lies in the person of its Prime Minister, H. Colijn, who had been Finance Minister since 1923. Under his administration the budget has been balanced. While the budget of 1922 still showed a deficit of more than Fl. 100 millions of ordinary expenditure, provision has been made for a surplus of Fl. 10 millions in 1926.

"On April 29, 1925, at the same time as Great Britain, Australia, New Zealand and the Dutch East Indies, the Netherlands returned to the gold standard as limited by the declaration of the Netherlands Bank of 1903.[1] On November 17, 1925, the Netherlands Bank began to exchange its notes to a limited amount for gold coins of Fl. 10. The President of the Bank declared that this was done to demonstrate the desire of the Bank to apply the gold standard as effectively as possible, but that at the same time the Netherlands Bank could not yet undertake to exchange its notes without restrictions of any kind: it must be able to refuse gold in the event of undesirable influences being at work.

"The policy of the Netherlands Bank towards acceptances arising out of foreign transactions shows the following development: During the war the Netherlands Bank at first refused to discount these bills at all, unless it could be proved that the underlying transaction served directly a Dutch interest. Later it adopted the negative standpoint that the underlying transaction must not injure a Dutch interest. In the meantime acceptances and endorsements of the so-called 'acceptance banks' (banks which in 1923–4 were established in Amsterdam by Dutch banks in collaboration with American, English, Swedish, Swiss and German banks for the special purpose of international accepting and banking business) were admitted. The latest development is that acceptances of foreign houses in Amsterdam have been admitted to re-discount under certain conditions. This measure is of special importance for the German banks established in Amsterdam during recent years. The diminution of the differ-

[1] "The Managing Directors of the Netherlands Bank undertake in relation to the Government to maintain and to continue the gold policy so far followed by them, *i.e.* to furnish, if the exchanges rise above the gold parities, gold for export at the price of Fl. 1653·44 per kilogram fine for bullion, and at a corresponding price for gold coins, as long as the Netherlands Bank is able to do so"

ence between the money rates in Amsterdam and Berlin during the last few months has, however, decreased its importance.

" On November 26, 1925, a commercial treaty between Holland and Germany was signed. This treaty extends the most-favoured-nation treatment granted to Holland in 1851, and prolongs—at a lower rate of interest (5½ per cent.)—the revolving credit, accorded in 1920, from 1930 to 1937."

PROF. G. W. J. BRUINS has been succeeded in the Commercial University of Rotterdam, on his appointment as Commissioner of the Reichsbank under the Experts' Plan, by Dr. G. M. Verrijn Stuart.

RECENT PERIODICALS AND NEW BOOKS

Journal of the Royal Statistical Society.

Vol. LXXXIX. Part I. *Nonsense Correlations: a Study in Sampling, and the Nature of Time Series.* G. UDNY YULE. *Distribution of Employment in the Wool Textile Industry of the West Riding of Yorkshire.* A. N. SHIMMIN. *The International Statistical Institute.* SIR H. REW.

Economica.

MARCH, 1926. *The Beginnings of Banking in North Wales.* A. H. DODD. *The Dynamics of Capitalism.* L. ROBBINS. A criticism of certain uses of the idea of monopoly, especially its identification with scarcity. *Juvenile Employment in West Ham.* P. ROKER and H. C. SCOTT. *The Factory System of the Nineteenth Century.* W. H. HUTT.

The Quarterly Review.

JANUARY, 1926. *Profit-sharing and Employees.* W. H. HAZELL. On the ground that "one volunteer is worth several pressed men," profit-sharing may be industrially advantageous to all. Labour risks are such that workmen should not share losses. The author is of opinion that the scope for such methods is greatest in concerns where the cost of labour is relatively great, since the improvements to be expected will then be more important; but are these not the cases where a percentage of the profit, when shared, amounts to least per employee? The investment, or co-partnery, method of applying the workers' share is made subject to certain restrictions; to meet the usual criticism on this point, he would be willing always to issue shares at par, and give ordinary voting rights.

The Round Table.

MARCH, 1926. *The Control of Public Expenditure.* Parliamentary control is a failure, under the present system of accounts, which is "a mere cash-book comparing the year's payments with the grants." The House of Commons is not qualified to deal with estimates as now rendered, while "audit is essentially post-mortem, and the work of that Committee comes two years in arrear." Treasury Control and "broad axe" inquiries are also defective. It is therefore necessary to recast the estimates and accounts on business lines, the expense to be shown in relation to the particular service obtained.

The Edinburgh Review.

JANUARY, 1926. *Public Accountancy.* LT.-COL. SIR J. KEANE, D.S.O. A vigorous defence of the new methods of accounting employed in the Army Estimates, and protest against reversion to the old.

Accounts worthy of the name must be departmentalised, or "conform to the orbits of personal responsibility." This principle is violated in classification by votes, instead of by spheres of responsibility. The old method serves only one purpose, that of fidelity; the proper accounting method should enable administrative competence to be judged. *Local Government Problems.* W. R. BARKER, C.B.

American Economic Review.

MARCH, 1926. *Economics and War.* ALLYN A. YOUNG. A plea against the treatment of individual trade in the international sphere under metaphors of war, by "a modern animism which imputes malign intent to personified nations"; and in favour of wider international agreements. *A note on Elasticity of the Currency.* M. D. ANDERSON. *Cassel's Theory of Pricing.* A. B. WOLFE. *Consumer's Surplus.* J. MAYER. The phrase is held to be "absolutely meaningless."

Quarterly Journal of Economics (Harvard).

FEBRUARY, 1926. *Toward an understanding of the metropolis.* R. M. HAIG. A study of the economic and non-economic factors in the development of cities. *Trade Union Policy.* G. E. BARNETT. *Industrial Invention: Heroic or Systematic?* R. C. EPSTEIN. *Farm Cost Investigations in the U.S.* M. K. BENNETT. *Current Literature on Valuation.* J. C. BONBRIGHT.

Journal of Political Economy (Chicago).

FEBRUARY, 1926. *The Task of the English Coal Commission.* A. HEWES. *Railroad Abandonments and Additions.* H. R. TRUMBOWER. The operation of the Transportation Act of 1920. Certificates of public convenience and necessity may require the total or partial abandonment of a line. Insufficient traffic, excessive railway competition, or alternative forms of traffic are examples of grounds of action. A similar certificate is required for new railroads or extensions. *Manufacturer and Artisan,* 1790–1840. H. A. WOOSTER.

Annals of the American Academy of Political and Social Science (Philadelphia).

MARCH, 1926. *Legal Aid Work.* "An analysis and discussion of the various agencies developed in the U.S. for the purpose of securing legal aid to poor persons."

Review of Economic Statistics (Harvard).

Vol. VIII., No. 1. *Analysis of Changes in the New York Money Market. Money Rates and Security Prices. The long-run trend of the Building Industry. Review of* 1925.

Bulletin of the U.S. Bureau of Labour Statistics (Washington).

No. 369. *The Use of Cost of Living Figures in Wage Adjustments.*
Nos. 370 and 391. *Labour Laws of the U.S. and Decisions of Courts relating thereto.*
No. 393. *Trade Agreements,* 1923 *and* 1924.

No. 394. *Wages and Hours of Labour in Metalliferous Mines*, 1924.
No. 396. *Retail Prices*, 1890–1924.
No. 397. *Building Rents in the Principal Cities of the U.S. in* 1924.

Monthly Labour Review (Washington).

DECEMBER, 1925. *The Present Status of Minimum Wage Regulation.*
JANUARY, 1926. *Are Average Wages keeping pace with the Cost of Living?*
FEBRUARY, 1926. *Unemployment in Foreign Countries.*
MARCH, 1926. *The Trade Union Movement in Germany.*

Journal des Économistes (Paris).

FEBRUARY, 1926. *A propos du rapport de la Banque de France.* YVES-GUYOT. *Les dettes interalliées.* By X. It is maintained that the settlement with Italy is not in relation to the demands upon France. Equivalence would require from France to Britain a sum rising after seven years to five millions sterling. There are still too many illusions as to European security, and the part to be played by France.
MARCH, 1926. *Réflexions sur la situation financière.* YVES-GUYOT. *L'Evolution de la crise économique allemande.* By X. *Du caractère des opérations de banque dans les principaux pays Européens.* P. GAUBONE.

Revue d'Économie Politique (Paris).

JANUARY–FEBRUARY, 1926. *La loi de la demande individuelle et la rent de consommateur.* UMBERTO RICCI. *La situation économique en Allemagne.* M. GRINBERG. *L'indice monétaire et la théorie de la monnaie.* F. DIVISIA. *L'or du Transvaal.* L. BAUDIN.

Giornale degli Economisti (Milan).

JANUARY, 1926. *La crisi della "stabilizzazione monetaria."* C. BRESCIANI-TURRONI. The nature of the problem of stabilisation, with some special reference to German experience. Stabilisation is not so much the consequence, as the necessary condition, of improvement in the economic position. But it is not entirely a monetary fact; it implies also an economic deflation of costs, capitalisations, unproductive works, etc. It has, like inflation, some general features, but many that are peculiar to each national economy. *Le teoria della moneta e del valore in Aristotele.* G. MAJORANA.
FEB.–MARCH, 1926. *L'Offerta del Risparmio.* UMBERTO RICCI. A diagrammatic and mathematical investigation.

Metron (Padua).

Vol. V., No. 2. *On Sampling.* E. C. RHODES. *The Growth of Population in England and Wales.* M. GREENWOOD. "It is not probable that the immediate trend of population will lead to any very striking modification of productive power within the next twenty years." Opinions may differ as to whether the population as a whole is biologically more vigorous to-day than in 1883. It is probable that the death-rate will rise. *Life Tables of the City of Leningrad.* S. NOVOSSELSKI and V. PAEVSKI. *Height and*

Weight of School Children in an English Industrial Area. W. R. DUNSTAN. Rural and industrial results are compared.

La Riforma Sociale (Turin).

JANUARY–FEBRUARY, 1926. *La Riformà del metodo di tassazione della società per azioni.* PROF. L. EINAUDI. *I Memoriali di Alfredo Marshall.* PROF. A. LORIA. "Figlio delle proprie opere, prodotto di un connubio fecondo fra l'intelligenza nativa e la inflessibile tenacia, Alfredo Marshall rimane la personificazione più luminosa e riuscita del sacerdote laico, o dell' asceta del sapere."

MARCH–APRIL, 1926. *Rivalutazione e stabilizzazione della lira.* C. ROSSELLI.

Scientia (Milan).

MARCH, 1926. *La portée et les effets de la nouvelle politique américaine d'immigration.* By ceasing to act as a "new" country, the U.S. creates a grave problem for some European nations.

Zeitschrift für die Gesämte Staatswissenschaft (Tübingen).

1925–6, No. 3. *Kartelle und Rechtsordnung.* DR. G. LUCAS. An account of the influences leading to the post-war growth of the Kartells, and of the working of the Decree of 1923, which established the Kartell Tribunal, to prevent "the abuse of economic power." The important clauses of the Decree are discussed in detail. The author is President of the Imperial Economic Council. *Die Tschechoslowakische Bodenreform.* DR. C. WORLICZEK.

Archiv für Socialwissenschaft und Socialpolitik (Tübingen).

JANUARY, 1926. *Konjunkturtheorie und Konjunkturstatistik.* DR. E. ALTSCHUL, Berlin. An account of the investigation of economic conjunctures, and of the methods applied in America and Germany. The relative values of empirical statistical comparisons, and of the mathematical analysis of correlations, with special reference to the work of the Harvard Institute. Mathematical methods are required for the solution of the problems empirically indicated by statistics. *Die Bekämpfung der Wohnungsnot in Grossbritannien.* DR. F. HEYER, Consul at Glasgow. The results of the post-war housing policy in Britain. The middle classes are being driven by the cost of living into smaller houses, so that the working classes in turn have to be content with old houses, and the clearance of slums is impeded.

APRIL, 1926. *Das Prinzip des Kleinsten Mittels in der Wirtschaft.* PROF. W. VERSHOFEN.

Zeitschrift für Volkswirtschaft und Sozialpolitik (Vienna).

Vol. V. Parts 4–6. *Wirtschaftspolitik und natürliche Relation zwischen Innen- und Aussenwert des Geldes.* DR. E. LUKAS. *Vilfredo Pareto, seine Bedeutung für die österreichische Schule.* DR. G. H. BOUSQUET. An appreciation of Pareto's relation to Walras in particular. "Pareto was the Walras of Sociology." *Die Währungspolitik der Vereinigten Staaten.* DR. F. A. HAYEK.

Weltwirtschaftliches Archiv (Jena).

APRIL, 1926. *Der Begriff der Weltwirtschaft.* DR. B. HARMS. *Wirtschaft und Geopolitik.* DR. W. VOGEL. *Die Bedeutung der überseeischen Märkte fur Europa.* DR. A. FRAENKL. *Der Europäische Zollverein.* DR. E. HANTOS.

De Economist (Rotterdam).

FEBRUARY, 1926. *Rent and the General Theory of Value.* (In Dutch.) PROF. W. C. MEES. *Europaïsche Sanierung durch den Europaïschen Zusammenschluss? Mittel-Europa und Pan-Europa.* DR. JULIUS WOLF.

MARCH, 1926. *The Trade Cycle.* R. G. HAWTREY. The fundamental relation of bank credits to the cycle. "The too ready acceptance of reserve proportions as the guide to credit policy was the real cause of the trade cycle before the war." American experience shows that expansion can be checked in time in a single country; there is no reason why this remedy should not be more generally applied by international co-operation.

APRIL, 1926. *De Internationale Geldmarkt.* T. GREIDANUS.

L'Économiste Roumain (Bucarest).

FEBRUARY, 1926. *Le Crédit Industriel en Roumanie.* DR. G. NETTA. An account of the industrial credit bank, which is now able to grant credits for long periods on terms not formerly possible to the commercial banks.

Ekonomiska Samfundets Tidskrift (Helsingfors).

New Series, No. 6. *Some Questions of Banking Policy.* A. MONTGOMERY. *External Stabilisation of Finnish Currency, its Assumptions and Realisation.* H. SCHYBERGSON. *Municipal Budgets and Rates.* G. ESTLANDER. (In Swedish.)

International Labour Review (Geneva).

FEBRUARY, 1926. *The Frankfurt Academy of Labour and the Problem of Workers' Education.* DR. E. MICHEL. *The Results of the Adoption of the Eight-hours Day.* The effects upon the "human factor" in production. *The International Trade Union Movement.* The problem of organisation.

MARCH, 1926. *The Influence of Machinery on Agricultural Conditions in North America.* W. A. RIDDELL. *The New Wage Act in South Africa. Pre-Apprenticeship and Vocational Guidance in France.*

APRIL, 1926. *The American Labour Movement and Scientific Management.*

Ekonomisk Tidskrift (Uppsala).

1925, No. 6–7. *Statistical Notes.*

1925, No. 8–9. *The Taxation of the Nobel Institute.* DAVID DAVIDSON. Is the Nobel Institute liable to pay income tax or not? *The Value of Money and Protection.* SVEN BRISMAN. A rejoinder to Professor Heckscher's remarks on Professor Brisman's criticism of the Final Report of the Tariff Commission. What causes a rise

of prices, when import duties are imposed? Will it come about *directly*, or is a disturbance in the balance of payments necessary that leads either to gold imports or to an excess of foreign bills, which are bought by the banks? Brisman argues that the price level will rise at once, and that this is made possible through an increase in the velocity of money or by an extension of bank credit. The latter two elements on "the money side" adjust themselves to the new situation automatically, so a disturbance in the balance of payments is not necessary, although it may occur. Temporarily, the changes in the general price level and in the elements on the money side go together, but from the point of view of causation the change in the price level should be given a primary position. Thus, the price level is an independent factor in Fisher's equation of exchange. It is not justifiable to say that a variation in the price level is always *caused* by variations in the other elements in the equation. The Danish exchange revolution last year is used as an illustration. Here speculation led to a fall in the foreign exchanges and to a reduction of import and export prices; the velocity of money was reduced *as a result thereof*, and later the quantity of money fell, too. *The Level of Wages in Sweden.* GÖSTA BAGGE. (An address read to the Economic Society, Stockholm, followed by discussion.) The development of wages and prices since 1914 is analysed. In 1923 workers in manufacturing industries received wages per hour that were 150 per cent. above the pre-war level, whereas the prices of the products of these industries were only 75 per cent. above the level in 1913. Thus, real wages per hour were almost 50 per cent. higher than in 1913, but owing to the eight-hours day and the temporary unemployment yearly real wages only exceeded those of 1913 by something like 15 per cent. How can this enormous increase in the price of one hour of labour be maintained without causing an extraordinary unemployment? A simple explanation is that the efficiency of production has increased in the same proportion. This, however, is contrary to fact, as the volume of production in manufacturing industries in 1923 was not greater than in 1913; nor was production in agriculture larger than before the war. On the other hand, statistics about taxation seem to show an increase in the Swedish real national income by 17 per cent. This increase is partly due to more advantageous terms of exchange in international trade. Swedish export prices have risen much more than import prices. What has happened to the supply of factors of production? The number of working people in Sweden has increased by about 100,000, but the working day is almost 15 per cent. shorter. Savings seem to be a little smaller than before the war. About changes in the technical organisation little definite is known, but the general impression is that there has been some progress. In so far as a conclusion can be drawn, it seems to be, that the supply of factors has changed in such a way as to reduce the wage level and increase the income that goes to capital. But the contrary has happened. To understand the development one must remember that real wages were lower during the war than before, and that the fall in the costs of living after the war has been more pronounced than the reduction in money wages. Thus, it seems clear that the inability of wages to follow sufficiently the price movement goes some way towards explaining the present

situation. Another important factor is that the construction of fixed capital for productive purposes was enormous during the war, but is at present very small. Instead, more consumption goods are produced; in fact, a part of the new savings only lead to increased consumption by the working classes. Third, the superfluity of fixed capital makes it possible to maintain abnormally high wages, for although there is in many cases little or no reward to the owners of that capital, and consequently little new construction, yet there is a sufficient supply of it for some time to come. A very significant circumstance is the reduction in real wages in agriculture, which is the outcome of the abnormally low prices on agricultural products in 1922–23. Cheap food means high real wages in manufacturing industries. Professor Bagge concludes that the position in 1923 was abnormally advantageous for the workers in manufacturing industries.

1925, No. 10–11. *The Exchange Problem in the Scandinavian Countries.* KNUT WICKSELL. The common theory has it that an abnormal scarcity of goods, similar to the war-time scarcity, can only cause a *proportional* rise in the general price level. A reduction in the supply by 10 per cent. should only raise prices by 11 per cent. If prices rise more, the causes must be on "the money side"; (compare Cassel: *Money and Foreign Exchange after* 1914). This doctrine rests on a false, or, at least, ambiguous concept of "purchasing power." If a reduction in the supply of commodities calls forth a more than proportional rise in corresponding prices, then it increases at the same time, *eo ipso*, the total purchasing power. The demand for goods springs from other goods (J. B. Say). Of course, the quantity of means of payment has to be increased, unless the habits of payment change. The latter may very well happen. As a difficult and radical change in our habits of consumption is necessary, it is not improbable that the habits of payment can be changed too. If the banks increase the quantity of money it is only to make such a change unnecessary; they do not thereby *cause* a rise in the price level. If this hypothesis is correct, Wicksell adds, then practical business people were right in attributing to the scarce supply of goods during the war a greater share in the responsibility for the rise in the general price level than did the economists. The rise in the Swedish price level was due to three causes: (1) the inflation in the gold standard countries; (2) the increased freight rates from America; (3) the restriction on Swedish imports. Cassel is criticised for inconsistency. The discount policy of the Federal Reserve Board cannot explain the violent deflation in 1920. Here, too, factors on the "commodity side" have been more potent than has been assumed. The fall and rise in the Danish and Norwegian crowns is discussed. *The Economic Importance of Short-time Credits.* ERIK LINDAHL. Short-time credits reduce the need for cash reserves and, thereby, the central banks' gain from the note issue. On the other hand, every enterprise saves more or less of its interest expenditure. In the absence of short-time credits, production in industries that would need great cash reserves (*e.g.* certain seasonal industries) would be unnecessarily expensive, and thus the direction of production changed in a way not justified by the real costs of production. The effect would be similar to that of a tax on

production in certain industries. The relative price of the factors of production would be changed, probably to the disadvantage of land. A practical conclusion can be drawn: a free money market, *i.e.* a market for short-time capital, is a great advantage; it should be organised in Sweden as soon as possible. *The Definitive Organisation of the World's Monetary System.* KNUT WICKSELL. (An address read to the Economic Society, Stockholm. With discussion by Heckscher, Rydbeck and other.) Many practical problems are still unsolved, in spite of the general tendency to return to the gold standard. To pay interest on the public debt in pounds sterling that are worth twice as much as the pounds that were originally lent to the State is a kind of generosity or stupidity that will probably not last for ever. On the surface advocates of the gold standard have been victorious over the small number of fantastic theorists (*e.g.* Wicksell himself) that have fought for the regulated paper standard. But, if the value of gold is regulated, as is recommended in the Genoa resolutions, then the latter have won something essential. The great practical problem of to-day is how this regulation can best be carried out. To stabilise the value of gold directly through affecting the demand or supply of gold is probably impossible. The laws and customs that regulate the gold reserves in the central banks cannot be incessantly changed, now in one, now in the other direction. The possiblity remains of stabilising the price level directly; stabilisation of the value of gold then follows. Before proceeding, Fisher's plan of stabilising the dollar is criticised. If all countries adopted it, the only outcome would be changes in the value of gold and an insignificant check on fluctuations in the price level. The aim must be to stabilise the price level *in spite of* the convertibility of the notes, *i.e.* to maintain a world price index as constant as possible. This assumes that the credit policy of the central banks in different countries should be to some extent uniform and regulated with that end in view, a standpoint which is implied in the Genoa resolutions. That is the same policy as has been advocated by Wicksell himself consistently since 1898. (Compare *Geldzins und Güterpreise*, 1898, and several papers in Swedish and German periodicals, and *Vorlesungen II*, 1922, Fischer, Jena.) The usual stipulations about a certain proportion between notes and gold reserves should be given up, as they might prove a hindrance to an elastic policy. A certain agreement about the distribution of the world's gold supply would perhaps be necessary. The danger would be that no central bank would want a considerable quantity of gold. Cassel's reasoning about the relation between gold supply and price levels is criticised. A principal difficulty in making such comparisons arises from the fact that, although wholesale prices were on the same level in 1910 as in 1850, the costs of living were much higher in the former year.

1925, No. 12. *Theoretical Remarks on the Eight-Hours Day.* GUSTAF ÅKERMAN. A discussion of some of the problems raised in Professor Ohlin's paper (*Ekonomisk Tidskrift*, 1924, 12, and 1925, 2–3). *The Future of the Gold Standard.* DAVID DAVIDSON. It is possible that the scarcity of gold will increase, which tends to depress the price level. On the other hand, it is equally possible that new gold mines will be discovered or that people in India will cease

their hoarding of gold. This would substantially increase the supply available for monetary purposes and have a tendency to raise the general price level. The value of gold can be stabilised if the use of gold in circulation is given up for ever. The banks' cash reserves could be reduced and a common gold fund organised that could be used for regulation purposes, in case the production of new gold or India's demand should cause disturbances. Of course it is equally feasible to regulate not the value of gold, but the price level directly, as advocated by Wicksell and others. Both methods could be used at the same time.

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INHERITANCE AS AN ECONOMIC FACTOR[1]

I. Introduction

It will probably not be disputed that one of the fundamental institutions of our modern life which is likely to come under criticism and challenge in the next twenty or thirty years is that of Inheritance. In the first place, it is considered to be inextricably bound up with the inequality of incomes and wealth; this inequality is said to be an offence against social justice; and this offence, in turn, is said to be a source of social unrest which is against the interests of the whole community. In the second place, it is said to be essential to the accumulation of capital resources which, irrespective of their ownership, are said to be vital to progress and, indeed, to the maintenance of industrial civilisation. In the third place, the satisfaction of fiscal needs, with the problems of the most suitable forms of taxation, raises important questions as to the economic reactions of inheritance. And lastly, the theory of socialism, continually urged as a better and more advanced system for economic life, is demanding profound changes in this principle.

It is the purpose of my address to ask whether economic science, standing clear of the political arena and so-called class interests with their mere defence of what is, or their mere attack upon it, has had any definite findings to contribute to the discussion of the whole case; and, if not, to suggest some of the chief questions which have to be explored and answered by economists before such findings can properly be arrived at, and to set out some possible or provisional answers which are at present available.

I am aware that a complete discussion of the matter extends beyond economics into ethical, and even philosophical fields. For example, suppose that a case of social injustice stands clearly proven upon all those facts which are apparent to and comprehensible by the average individual who is moved by such a feeling.

[1] Presidential Address before Section F of the British Association, Oxford, 1926.

But suppose, also, that if an extension of mental power or experience were possible, a second series of underlying tendencies could be brought into comprehension which would modify that case, and correct an illusion. What is the proper mode of action? If society has a right to determine its own form and destiny, must it be dealt with as it thinks it is, or as it *ought* to think it is? It may well be that the full economic case will ultimately present the most difficult dilemma of all—a dilemma of two planes, transcendental, or, at least, indeterminate. But my reflections upon the subject convince me that there is a field of deliberation and inquiry for economists which has, so far, only been casually and cursorily surveyed, but which must be carefully explored before the economic case can be presented.

II. Methods of Inquiry

It has often and rightly been remarked that economics suffers as a science because it is unable to avail itself of the method of agreement and difference as an engine of discovery. The isolation of the presence of a particular factor in order to discern if some effect or concomitant is always present; the isolation of its absence, to determine whether the supposed effect or concomitant is always absent; or, failing isolation, the association of that factor with a wide variety of others, and the observation of absence or presence of the antecedent with the presence or absence of the consequent; or again, the establishment of a quantitative relationship so that small and large "doses" of the antecedent are accompanied by small and large doses respectively of the consequent; all these methods of direct experimentation open to the physical sciences are lacking to the economist. At the most he can follow by induction, with all the dangers of the false cause or the multiple cause, from observation of conditions existing at the same moment in different places, or at the same place at different times. If he is told that a given economic condition is brought about by a particular factor, such as a law or a social custom, he is seldom in a position to try the absence of that law or custom directly. Even if he does, the other conditions will not remain constant, and a logical weakness, if not a common-sense doubt, will exist. It will exist especially if some human likes or dislikes are involved, with consequent sectional feeling or sentiment. The precise economic effect of Prohibition, for example, is open to dispute because of the difficulty of dispassionate observation and reasoning where feelings as distinct from intellectual processes are involved.

But the economist has one advantage over the physicist. If the latter cannot actually remove the element in question from his phenomena or introduce it at will, he is usually at a loss. It is not generally open to him to *imagine* what would follow from its absence or presence, or to reason from analogy. (And here I am not overlooking the immense advances made by postulating from observation of what are imagined to be effects, certain qualities which any factor, operating as a cause, would need to possess, and then elaborating what would follow from such qualities if they really existed, and finding, under other or different circumstances, that those prognostications are verified. Working hypotheses of this order are the commonplaces of science.) I am rather referring to another kind of postulation from experience. We see about us a certain set of economic conditions, and co-existent a certain law or custom. Interest or ignorance, or superficial observation, or political prejudice, may urge that they are related as cause and effect. But the economist has to be wary and watchful. It is open to him to imagine an economic world free from such a law or custom, and by what he knows as to the behaviour of the average man under the hedonic impulse, to work out a new or hypothetical economic system. This type of economic psychology is rendered more possible if there are, in fact, already in existence a number of individuals unaffected by the factor in question, whose behaviour is known and observed. By splitting the problem or the community up into its smaller significant or fractional sections, and making an estimate for each section, the possibility of error in the aggregated estimate is much reduced. If the resultant economic system which the economist deduces following the subtraction or the addition of the particular custom or law, differs widely from the actual state, then the effect of that custom or law is obviously large and important. But if much the same state of affairs is hypothetically evolved, then the explanation of such a state must be elsewhere, if the explanation that is being sought is a true differential.

Everywhere we observe that men are not born equal; stations or fortunes in life are influenced by the fact that A and B were their parents, and not C and D. Something that A and B did or had, that C and D did not or had not, lives after them, and influences the economic position of X, the son of A and B, so that he is essentially different from Y, the son of C and D. The fact that men "inherit" seems to be a fact that *prima facie* should have real economic significance. What would the economic world be like as compared with the present economic world, if

men really started equal? Or what would the economic world be like if men started with great inequalities, but these inequalities were quite fortuitous and had no relation to the circumstances or qualities of parents? In either case we postulate a world in which inheritance is absent as an economic factor.

It may well be that such an analysis would be inconclusive or indeterminate at the last, that at certain points we find we need close or exact statistical data that are absent, that at others the balance of probability as to economic psychology in the mass is in doubt, and that at a critical point unbiassed scientific estimates differ widely. At the worst we should know the area of scientific uncertainty, we should have exposed the points on which exact observation ought in future to be focussed; we should have given an estimated result with an idea of the probability of error. All of these stages are some way towards truth, at least further on than no analysis at all. In practical matters we may after all, like others who have not joined in our analysis, have to "jump" the gap and flagrantly guess, or act empirically by instinct. This the world has been doing on the widest scale for centuries while knowledge has been growing. But it is something to know that we are voting or deciding not indeed unscientifically but *non*-scientifically, which we have no business to do, save *faute de mieux.*

III. The General Heritage of an Environment formed under Certain Conditions of Inheritance

I am not referring particularly to what we call *our social heritage, i.e.* to what the whole community A enjoys by reason of all that the preceding whole community B has left, either produced and evolved by B itself, or received from and perpetuated by the whole community C that preceded B. I am dealing with the principles and fact of *individual* heritage. But the two cannot be wholly dissociated. As Professor Pigou has said, "Environments have children as well as individuals." And if the social heritage which A received from B was one in which individual heritage played an important part, it may well be that it is an entirely different social heritage from what it would have been if the practice of individual inheritance in that heritage had then been absent. All men to-day are the heirs of a body of knowledge accessible to them without distinction; to a system of law, and to a considerable amount of communal wealth in parks, roads, and public facilities. That social heritage is an important factor

in the total quantity of wealth which is produced in response to a specified aggregate of human effort to-day. If that heritage had been less in quantity or different in quality from what it actually is, the economic response to human effort to-day would certainly be quite different. It may also be, though this is less capable of proof, an important factor in the *share* of that quantity which accrues to a specified individual effort on the part of M and N, members of that community, respectively. Now the social heritage in question when it was "incubating," so to speak, in readiness for the present generation, was incubating under certain conditions of individual inheritance. Would it have been the same social heritage if the incubating conditions had not included individual inheritance?

It will be seen, therefore, that while we may focus on *individual* inheritance, it cannot be wholly dissociated from the communal aspects. When M comes into the world, he has, as an economic unit, to associate with two types of assistance, *i.e.* what he individually inherits from his parents, and what he socially inherits from previous society, and in both of these the principle of individual inheritance has been present.

But this social heritage, which is either economically richer or poorer in potentiality because it was the product of a set of conditions which included individual inheritance, is one of the chief working assets of every individual to-day, whether he has the benefit of some particular individual inheritance or not. The effects of inheritance as a custom do not, therefore, exhaust themselves in the direct line, as may be clearer from hypothetical illustrations. Suppose that the power of bequest is an immense stimulus to an able man, who under its influence exerts his ingenuity to the highest degree, creates new capital forms, and new mental embodiment of his genius in organisation. He raises the potentiality of the average worker as a unit in the social system, enriching himself and his social environment simultaneously. Under this system an individual in the next generation *observes* that he is not so well off as he would have been if the inherited wealth had not gone to the heir, but had been diffused over the community, but he perhaps fails to observe or realise that if the personal wealth had *not* been destined to go to the heir, the addition to the social heritage might never have come into being. He has not, indeed, inherited his share of the *whole* results of that man's life, but only that unseen unrealised part which was enjoyed by the community. It was, moreover, impossible to inherit both, because this non-inheritance of the personal part was a condition

under which *both* the personal part and the social part came into being. Whether this is a likely picture of reality or not depends obviously on the initial assumption, *i.e.* whether it is true in any sense that the power of bequest is a real differential as an economic incentive. Let us take an assumption applicable to the environment as distinct from the individual, and suppose that the knowledge that the individual can leave his wealth to his son and not to the community acts as a social irritant, an economic "sulkifier." All workers' efforts are then crabbed and limited by their psychological state; their output is restricted, and often interrupted on trivial pretexts; they have no ready elasticity to participate willingly in new combinations of the organising mind. Then the total economic result of the community's efforts may be less than if our original mind had never exerted itself at all, producing individual wealth for individual bequest. The individual may, indeed, have abstracted, by his ingenuity, something as an accumulation for bequest, but the quantitative reaction on the economic or environment heritage is, in minute individual amounts, greater in the aggregate. The social heritage for the forthcoming generation to work with is poorer. Even if the lucky inheritor comes into his personal share he may have to employ it with an impoverished social heritage which will reduce his share far below what he, a man of ability, might have secured with a responsive social environment and a better social heritage. And each individual of that second generation has a poorer standard because of the stunted social heritage, poorer perhaps even if he had his share of the direct inheritance as a set-off. Here the truth of the conclusions is not objectively measurable, and depends on the truth of the assumption that the system is an economic irritant. Whether the system is an individual incentive or a social irritant or both, or neither, is a question of average psychology. If both assumptions are true, the effects may balance, and the resultant economic systems, with or without the inheritance factor, identical. But if either is more powerful the result must be different, and a system including inheritance either worse or better than the system without it.

I have laboured all this preliminary analysis, because it is so necessary to observe that the social and individual interact; so necessary to convince people that the dynamic tendencies of forces affecting the distribution of wealth are at least as important as the static results, and may even be more powerful.

IV. Contributions by Classical Economists

The discussion by economists has usually arisen in connection with "social justice" in distribution, or justice and expediency in connection with taxation. I will take two examples :—

In 1795 Jeremy Bentham asked the question, "What is that mode of supply of which the twentieth part is a tax, and that a heavy one, while the whole would be no tax and would not be felt by anybody?" His plan was to abolish intestacy, all property where there was no will going to the State. He also proposed to limit the power of bequests of testators who had no direct heirs and, in addition, that the State should have a half-share of sums going either under a will or not, to such relatives as grandparents, uncles, and aunts and perhaps nephews and nieces, and also a reversionary interest in the succession of direct heirs who had no children and no prospects of them. I am not concerned to give you all the various legal and philosophical reasons underlying Bentham's proposal. He held that this was not a tax, and that its chief advantage was freedom from oppressiveness. In the case of a tax on successions, a man looks on the whole of what is left to him as his own, of which he is then called upon to give up something. But if, under the law regulating successions, he knows that nothing, or only a small share, is due to him, then Bentham claimed that he would feel no hardship, "for hardship depends on disappointment, disappointment upon expectation, and if the law of succession leaves him nothing, he will not expect anything."

Professor Seligman remarks that, exaggerated as Bentham's idea and distinction undoubtedly was, it contained a kernel of truth—namely, that there is no such thing as a natural right of inheritance, and that the extension of intestate succession to collateral relatives is, under existing social conditions, defensible only to a very limited extent. Graduation of the tax according to the degree of relationship was the definite corollary of his ideas. The idea of the basis of taxation described as the theory of copartnership originated later, when writers combined with Bentham's argument the thought that the State should inherit property from individuals because of what it does for them during their lives.[1] Andrew Carnegie, the millionaire, was an enthusiastic advocate of this idea. I am not concerned with the socialist or "diffusion of wealth" theory, based upon the doctrine that it is a proper function of Government to use the power of taxation as an engine

[1] *Vide* Max West: *The Inheritance Tax.*

of social improvement, to stop the growth of large fortunes and bring about an equal distribution of wealth. Here it is necessary to remark that those defences of inheritance which rest upon the family theory of property are not altogether consistent with that kind of freedom of bequest which is commonly found in English-speaking countries. In Continental Europe, of course, the "legitime," and in the United States some of the State laws providing for a certain portion of the estate to go in a definite direction, to near relatives, make for a better support of the family theory. Seligman says that most thinkers, as well as the mass of the public, would still to-day maintain the custom of inheritance, not indeed as a natural right or necessary constituent in theory of private property, but as an institution that is, on the whole, socially desirable. Those who are not prepared to accept socialistic methods of reasoning cannot acknowledge the validity of the "diffusion of wealth" argument.

Other economists have discussed the question almost entirely as one of "social justice," and in so doing have often begged the question of its economic effects without examination.

John Stuart Mill held the view that there was nothing implied in property "but the right of each to his own faculties, to what he could produce by them and to whatever he could get for them in a fair market, together with his right to give this to any other person that he chooses, and the right of that other person to receive and enjoy it." He thought that it followed that although the right of bequest or gift after death formed part of the idea of property, the right of inheritance, as distinguished from bequest, did not. The succession, in the absence of disposition, by children or near relatives, might be a proper arrangement, but he agreed that there were many other considerations besides those of political economy which entered into it. He traced in antiquity a definite economic factor, where the disposition of the property otherwise than to the family surrounding it and interested in it, had the effect of breaking up a little commonwealth, united by ideas, interests, and habits, and casting them adrift upon the world. This created the idea of an inherent right in children to the possessions of their ancestors. But bequests at random were seldom recognised. Other reasons have usually been assigned by later writers, such, for example, as the supposition that the State in disposing of property along recognised lines would be likely to do it in a better way than the proprietor would have done, if he had done anything at all. Such reasons were hardly economic in their basis. Mill argued his case almost entirely on ethical and

moral considerations, and not from the point of view of any greater economic advantage, either to the individual or the community. He reached more economic ground when he discussed the conflict that may exist between bequests and the permanent interests of the community. He says : " No doubt persons have occasionally exerted themselves more strenuously to acquire a fortune from the hope of founding a family in perpetuity. But the mischiefs to Society of such perpetuities outweigh the value of this incentive to exertion, and the incentives in the case of those who have the opportunity for making large fortunes are strong enough without it." [1] By this, he would appear to imply that economic expansion or betterment in one direction was more than offset by *economic* contraction or worsement in another, although one is never quite clear whether he is balancing against improved material welfare deficiencies in other kinds of welfare.

Of the French law he remarked that " the extreme restriction in the power of bequest was adopted as a democratic expedient to break down the custom of primogeniture and counteract the tendency of inherited property to collect in large masses. I agree in thinking these are greatly desirable, but the means used are not, I think, the most judicious."

When Mill comes to his case for limitation of bequests, he touches somewhat lightly several economic considerations—*e.g.* where capital is employed by the owner himself, there are strong grounds for leaving it to him to say which one person of those who succeed him is the best equipped to manage it and avoid the inconveniences of the French law of breaking up a manufacturing or commercial establishment at the death of its chief. He refers to the upkeep of ancestral mansions. He regards it as advantageous that, while enormous fortunes are no longer retransmitted, there would be, by the limitation, a great multitude of persons " in easy circumstances," for from this class the community draws benefits which are semi-economic or non-economic. Moreover, the practice in the United States, neither compulsory partition nor a custom of entail and primogeniture, allows for liberty to share wealth between kindred and the public, leading to munificent bequests for public purposes.

V. The Discussion To-day

Scientific economic inquiry into the subject of inheritance from the point of view of its purely economic effects has thus been very

[1] *Principles*, B. II., Ch. II., § 4.

scanty amongst the classical economists. It is referred to, in passing, as a powerful factor in producing an uneven distribution of wealth, but its influence upon the direction of wealth production, or the actual aggregate mass of such production, has, so far as I am aware, not been really analysed. The economic aspect of the subject suffers from the fact that it has nearly always been developed in an environment of political thought rather than scientific analysis—of a programme of social change to be formulated or supported. As a consequence, therefore, assumptions have been made and adopted, without critical examination, as the basis of the case which the economist ought to admit only as the conclusion of abstract argument or definite research. However much a politician may desire to "get on" with the argument and develop his theme, and therefore treat as axiomatic a common belief, the economist who treats his science seriously is hardly justified in imitating him.

The normal approach to this subject is by way of innate or instinctive ideas as to social justice, based upon a study of distribution of product. It is pointed out that large individual fortunes exist side by side with extremes of poverty, or that a large proportion of the national income is enjoyed by a relatively small fraction of the people. It is suggested that the inequality arises from inheritance as an exercising cause, which therefore serves no socially useful purpose, or even a socially harmful purpose. It is stated to be an offence against the general sense of the fitness of things. The tendency by way of reaction is to assume that if the right of inheritance did not exist, the economic condition of affairs would not be similar, and that current economic problems would tend to be simpler and on their way to solution. This may indeed be the case, but it is not demonstrated. It may be one of those lucky instincts for political truth which the popular mind sometimes possesses. On the other hand, having regard to the unlucky instinct for error which popular economic ideas have been shown by experience to entertain, it is rather much to expect that in this particular matter instinctive judgment can be wholly trusted to dispense with analysis, reasoning or research. To put the matter quite bluntly, any assumption that an apparent social injustice is also an economic ill is a *non sequitur*. I am using the word "economic" in a strict sense, viz. in relation to the aggregate production of goods and satisfactions which are exchangeable, and which are produced in response to human demand and for human satisfaction, together with their distribution to individuals. I use it in no ethical sense, and am not concerned with whether

the things produced in response to demand, or first produced and then provoking demand, are the things most worthy of human effort, or most likely to lead to the highest types of life, or even in the long run to give the highest forms of happiness. To bring in these conceptions would be to overweight the argument and analysis and make it intractable. It is quite sufficient to deal with those aspects which are uppermost in the ordinary mind, that is, purely material welfare, the greatest quantity of objects of desire produced for the least human effort, the question of worthy use and aim being entirely begged until the economic conclusion is introduced into a set of considerations for "the whole duty of man."

Dr. Dalton, in his valuable work on *Some Aspects of the Inequality of Incomes in Modern Communities*, summarises much previous observation on the subject of the effect of inheritance on the *proportions* of distribution. The different national practices in regard to inheritance may also be conveniently studied in his book, from which will be realised that the right of inheritance is not an absolute right of property, but has varied much in different places and at different times even in this country. (I have written a short note upon it myself in the introduction to the English edition of Rignano's *Social Significance of the Death Duties.*) Dr. Dalton concludes that the effect of inheritance upon distribution of wealth has been almost ignored by economists.[1] He takes the view that inequality of incomes is due not merely to the direct influence of bequest, but also indirectly because inheritance enables some to have higher earning power than others. But he does not specifically deal with the subject of the aggregate wealth to be divided.

Professor Hobhouse in his book on Liberalism says, "Inherited wealth is the main determining factor in the social and economic order of our time," with particular reference to the existing distribution of the common product. But there is no examination of its actual economic tendency in the sense in which alone an economic answer is complete. Professor Henry Clay, in his contribution to the Liberal Summer Schools, gives us the best approach to economic analysis of recent times, but even he does not come to grips with the central problem. He takes as his starting-point the inequality in distribution of property, as deduced statistically from the Estate Duty returns, and says: "This inequality enhances and, in part, accounts for the inequality of incomes which is the chief cause of social unrest and the chief

[1] P. 283.

cause of waste in the modern economic system." But again he recognises that inequality of property is, in part, merely a reflection of inequality of incomes. People with large incomes can save and so accumulate property. It is the diffusion of wealth that to him is the central problem, and, although the allied problems are there in his mind, he too takes much as axiomatic that I think ought to be examined. Mr. E. D. Simon, in a recent address to the Liberal Summer School, avows his object to be to point out "how *dangerous* is the social effect of the excessive inequality of wealth that exists among us to-day." He says "there is a strong and growing feeling among the workers that the existing social and industrial order, with its excessive inequalities of wealth, is fundamentally unjust." And he gets the whole "jump off" in his argument by a graphic and moving contrast between the low wages and poverty of the jute industry and the great stone mansions of the jute lords, "set in spacious well-tended gardens." The recent debate in the House of Commons on this subject, when reduced to its simplest elements, consisted of the following *non sequiturs* :

There are gross inequalities in wealth, which are socially unjust. Inheritance laws bring these about, and if they were abolished wealth would be better distributed. If wealth were better distributed the average man would be economically better off. To be better off economically is to be aware of the fact and to be more contented. A sense of social justice and actual economic betterment are identical. People would then have a "fair start in life."

The economic question-begging, or confusions of thought on the other side, bluntly summarised, were : "Capital is an essential of life, and the worker would be badly off if it were not accumulated. Incentive is required for this. Right of bequest is an incentive to accumulation; inheritance and bequest are correlatives. Therefore, if rights of inheritance were altered, capital would dry up, and workers would suffer. The worker has no real *right* to be annoyed or sulky at a system which really benefits him, and in which the appearance of social injustice is an illusion; therefore we can ignore the fact that he actually is annoyed and sulky. Great businesses give the worker something he would not otherwise have—they depend on the right of accumulation, and therefore inheritance laws are sacrosanct."

Now I would say that since what people think, however unjustifiably or erroneously, affects their conduct and motives, and has, therefore, economic significance, these ideas are, as existing

features of conduct, economic *facts* or ingredients. But to say they represent absolute economic truths, or logical economic analysis, would be very inexact.

VI. The Problem To-day

Before we can approach to any conclusions upon inheritance laws as an economic factor we need research and analysis to give answers to a number of specific questions, some of them quite central and critical in making an economic contribution to the subject, and others less important, but helpful.

First we have those which depend upon an inductive study of periods and places, and which can at best be only broadly indicative of the predisposing causes :

1. Has distribution tended to become more unequal under freedom of inheritance or bequest as time has gone on ?

2. Is it most unequal where freedom is greatest ?

3. Is there any evidence that the actual standard of life and opportunity of a person of given powers has failed to improve under such a system, or has improved at a less rate than it would have done under another system ?

4. Is there any evidence that the actual modal standard is highest wherever and whenever inequalities, however caused, are least ?

5. Ignoring the *proportions* in which aggregate wealth or income is distributed, and focussing upon the increase in the aggregate wealth or income of separate communities, is there any evidence that the rate of increase is greater or less in communities with most liberal rights of bequest ? (This is similar to 3 stated in another way, and disregards the effect upon average wealth which an increase or decrease of population, stimulated by increasing prosperity, may have.)

Second, there is the group of questions bearing on the importance of inheritance amongst all the factors which promote inequality.

6. What other factors besides inheritance are held to promote or maintain inequality, and what is their relative importance in such causation ?

7. What proportion of the number of recipients of the larger incomes draw such incomes wholly from invested sources ? What proportion of the total *amount* of income drawn by the recipients of the larger incomes comes from sources unconnected with their

personal toil or enterprise? (This is essential to help us find the relative importance of inheritance under question 6.)

8. If cessation of inheritance could in itself bring about even distribution, what would be the maximum effect on the average worker?

Third. Next we have to consider, *a priori*, whether the even distribution test is the economic *summum bonum*. This involves psychological factors, and whether anything is economically good in itself if thinking does not make it so.

9. Is absolutely even distribution an economic, as distinct from a social, ideal? *i.e.* will wealth production be at its maximum in quantity and quality.

10. If not, at what point is "gross" inequality reached? By what standards, absolute or comparative, does one conclude that a given range of inequality is "gross," "indefensible," and, above all, economically disadvantageous?

11. Is a "fair wage" a relative or an absolute idea? *i.e.* in view of differences between different epochs and countries, is there any evidence that men's ideas are sufficiently stable for a "fair wage" finally to be reached? How far is it the product of difference of station?

Fourth. Then we have to ask, what motives, with any economic effect, are set up in the human mind or will, by a system of free bequest?

12. Is the right of bequest an overmastering factor in capital accumulation? What proportion of capital accumulation would go on without it?

13. Is the sense of social injustice arising from it of economic significance in aggregate production?

Fifth. There may be directional or partial, as distinct from aggregate, advantages in a system, which are a useful ingredient in social and economic betterment, *i.e.* variety and stability as against mere quantitative tests.

14. Does the right of bequest materially affect economic values which are of importance in particular directions, *i.e.* effect on consolidation of estates, hindrance to natural development, the conservation of amenities as against utilities, continuity of policy, etc.?

Sixth. In the last group we have a series of inquiries which approach the problem from the reverse direction, and also have a highly practical bearing.

15. What are the economic consequences of discouraging or nullifying bequest and inheritance by heavy taxation? Is there

any evidence to show that wealth distribution is made more even in this way, *ex post facto*, or that aggregate wealth making is discouraged or wealth-making capacity is reduced?

16. As regards the many who benefit, what is the effect upon motives towards production and towards psychological contentment?

17. As regards the few who suffer, what is the effect upon motive to work and to save? Must a given amount of taxation laid upon a given amount of capital wealth left at death have the same total effect, however it is imposed? Is it possible to arrange the imposition on any principle which will depress wealth-making motives to a minimum degree and fall more heavily at points where the harmful economic reactions are least?

There is a seventh group of questions which deal with the broader aspects of inheritance.

18. As other things besides objective wealth are inherited, can wealth be really or effectively dissociated from them?

VII. Comparative Inequality of Distribution

I regard the foregoing imposing schedule of questions as all pertinent to the economic inquiry. To some of them we have at present no answer at all; to others we have a partial answer or general indication; to others, again, a little reasoned analysis will afford us a high degree of probability. Within the scope of this paper I cannot do justice to all these questions or explore them all. I may perhaps summarise what we know in regard to some of them and give provisional answers to a few and suggest my views on others.

1. I have been able to find no positive evidence that the slope of distribution has materially changed in the past hundred years.[1] The scale of wealth is different and the whole population is strung out on the line further up. There are probably at the very top much richer men, and wealth on a scale unknown in former times. In this way I think that a given minute fraction of the people holds to-day a slightly larger fraction of the total income. So much of this has arisen, in the cases of great wealth, from activity during the income-receiver's life that it is not so much a part of the problem of inheritance as of distribution of the product of industry, the potentiality of the industrial system and accumulation of savings during life. This broader aspect of distribution is not the subject of our discussion. Some forces tend in an

[1] *Vide* my *Wealth and Taxable Capacity*, iii.

opposite direction, *i.e.* to lessen the centralising force of bequest: Heavy Death Duty taxation on these large aggregations, and the lessening importance of land in total wealth, and the weakening influence of primogeniture, which makes for family diffusion rather than concentration. Even if the distribution slope has not greatly changed, probably the inheritance system affects the angle of the existing slope. Professor Pigou remarks, in regard to the alleged immutability of the Pareto law, that income depends not on capacity alone, but on a combination of capacity and inherited property, and the latter is not distributed in proportion to capacity but is concentrated upon a small number of persons. This must deflect the curve from its normal form. The actual form cannot, therefore, be "necessary" unless the broad scheme of inheritance now in vogue is also necessary. But a very large change in the existing laws is not essential to bring about a great difference in the income curve, since property is more unevenly distributed. Thus $76\frac{2}{3}$ per cent. of the population owned only 7 per cent. of the property, but 73 per cent. owned $35\frac{1}{2}$ per cent. of the income. (Clay: *Property and Inheritance*, p. 19.) As regards the United States, Watkins (*Growth of Large Fortunes*) says: "For wages, the upper decile is less than twice the median down to 5/4ths the median. For salaries it is twice the median, and for property eight times the median." So far as Great Britain is concerned, the statistical indications are that static redistribution to-day would not add an appreciably different *percentage* to the modal income than formerly. Statistical evidence for past years for other countries on this point is too scanty to be of any use. There are no distribution figures of any value for Germany prior to 1890, and none for France at all, while the United States figures are good, but quite recent, and no comparisons with earlier times are possible. Research in this field, I believe, will be barren, and in the case of the United States, owing to other powerful factors, the figures would be inconclusive.

2. Distribution seems to me to be probably less unequal where bequest is trammelled, *i.e.* the "legitime" in Continental countries makes for family diffusion and equality, as in France and Germany. But for what it is worth, we must observe that the two richest countries have freedom, and the next two in order of wealth have conditional bequest. The only considerable one (Russia) with no rights of inheritance is now sinking into poverty, but this tendency, of course, cannot be assigned merely to inheritance custom. In any case, owing to the effects of the war, the comparison must be confined to pre-war years, and the evidence will be found in the tables in my *Wealth and Income of the Chief*

Powers. There is room for research and some comparative study of the diffusive effect of the "legitime" as compared with our own system. It must be remembered that, so far as all past wealth is concerned, without accumulation and concentrative power for new wealth being fully maintained, there must be an increase in equality if wealth is left to *all* the children, even where the effective birth rate for the wealthy is not maintained near the national average. If 5 per cent. of the adult population own half the property, then in the two generations (assuming a similar birth rate to the general) without any new accumulation, and, say, three times the total population, this 5 per cent. would still own one-half, but they would be three times as numerous and their individual shares only one-third the size. Now *new* accumulation must be relatively of great importance if the individual fortunes of the richest people are to be on the old scale of magnitude. It follows, therefore, that in the economics of the *very* rich, current or immediate right of accumulation tends to be much more important than inheritance at the second and later stages. Taxation and family diffusion tend to reduce the long-range inheritance effect on the size of individual fortunes in such a way that even if inheritance ceased altogether, the existence of the very large fortune would be very marked under the influence of other economic factors.

3. My conclusions as to the average position or actual standard of life have already been given elsewhere.[1] During the 120 years prior to the war I concluded that the real position of a typical or standard person in this country—*e.g.* at the lower decile—had improved four times. During this period the inheritance system has been fully in force. There is nothing to *prove* that the rate of increase would have been more if it had not been in force. Education and improved health have doubtless done a great deal in this advance, but probably the quota of accompanying fixed and circulating capital per head in improved machinery and transport has been the most effective feature. The question is, therefore, thrown back on to the inquiry, which hardly admits of statistical research, whether the accumulation of capital (regardless of ownership) could be as great under another system. There are four rival systems on which we may depend for the aggregate saving: (1) dependence on the better-off; (2) equalising individual resources and then expecting each individual small income-receiver to save; (3) saving through taxation; (4) collective saving (*e.g.* company reserves). In my view the third

[1] *Wealth and Taxable Capacity.*

is the least satisfactory; the second ought to be the best, but, in fact, is not. The call of spending on a small income is great, and it is difficult to save permanently for fixed capital assets. One man with £10,000 and 500 with £100 per annum may save £8,000 with its improvement in the future incomes of the 500, but on even distribution 501 people will each have £119, and they are not likely to save £16 each and spend only £103. This is where the redistribution due to heavy taxation is affecting our present aggregate savings to-day. Although the workers are saving more, they are not making up the gap so caused. The real rival to nineteenth-century saving is the saving that goes on silently through company reserves, etc., and that never actually becomes anyone's spendable resources at all.

4. Inequalities of wealth appear to be statistically less in France and probably in Germany, and certainly in Italy. In all these the average standard of life is lower than in the countries where inequality is greatest. There is, therefore, no statistical correlation between extremes of inequality and poverty of standard. The association is probably in the opposite direction, but this is, of course, no proof of actual or causal connection.

5. The comparative rapidity of increase in total national wealth can be tested by statistics to only a limited extent (vide *Wealth and Taxable Capacity*). We can go back to 1850 with the United States, where other factors than inheritance are so powerful, but some research would be needed to give good comparisons for the countries with limited rights of bequest, France, Germany, etc.

6. Coming now to the second group of questions, No. 6, Dr. Dalton has analysed some of the causes of inequality besides inheritance in the work referred to. But quantitatively we know little of their relation. Probably 110 years ago, when the income from property was to the income from business as 100 to 60, instead of 100 to 400 as it is to-day,[1] the effect of inheritance and accumulation on distribution was far greater than to-day, when many of the highest fortunes have been made within the lifetime of the holder, without significant initial resources. I think there is considerable room for statistical research upon this matter in different countries.

7. The proportion of people in the higher ranks of income who have income from occupations or businesses in which they are actively engaged, and also the amount of the income so earned in relation to the total income in each class is, I believe, as follows:

[1] Vide *British Incomes and Property*, App. IV.

Speaking generally for the total incomes of those with from £10,000 to £100,000, there has been a tendency for the proportion of income coming from earned sources to increase, and it would now be about 30 per cent. The proportion of the incomes over £100,000, of course, is rather lower. I have no means of knowing how much of this 70 per cent. comes from savings accumulated within the lifetime of the possessor, and how much from inherited wealth, but having regard to the rate of increase of the national wealth in the past fifty years, and the rate of increase of the inheriting population, it is probably a much smaller proportion from inheritance than is popularly supposed.

But when we come to consider how many of the rich people have an occupation earning income, there are over 70 per cent. earning and under 30 per cent. who have investment income only. (In the highest incomes the percentage of incomes from investment only is much smaller.) Out of this 30 per cent. a good proportion are of course doing voluntary unpaid work as magistrates or in other public positions; another section comprises women who have no opportunities; while another section would be men too aged to work. Since 16 per cent. of the large estates corresponding to these supertax incomes are left by women, we may deduct 5 out of this 30 per cent., leaving 25 per cent. for men. But since out of all estates of the magnitude left by men, 76 per cent. are left by men of over sixty-four, this leaves only 6 per cent. out of the 30 per cent. for younger men. Making due allowance for mortality rates in the estate distribution tables, for, of course, the larger investment fortunes tend to be concentrated on the higher ages, on the whole, I should doubt whether the percentage of able but *unoccupied* men living entirely on investment income in these classes exceeds 10, and it may be as low as 5 per cent., or, say, under 1,000 people. The actual *numbers* of the "idle" in the classes from £1,000 to £10,000 would exceed this by far, but I have no means of knowing whether the percentage is greater. Moreover, of those gainfully employed, only a minority are drawing their earned incomes solely from directors' fees, and the majority have industrial or financial activities in which they take a personal part.

8. I think the only test of the effect of equal distribution of wealth upon the average worker would be by distribution of the income. I have already published my statistical conclusion that if all the incomes in excess of £250 were pooled, then, after deducting the present taxation and a fund of new savings equivalent to the pre-war real savings, it would not give each family more than

5*s.* per week.[1] But much of this redistributed income is earned income, and therefore the redistribution of property income would give spendable income falling below this figure. There is room for research on this question for the United States, France, and Germany.

VIII. The Standard of Life and Psychology

The third group of questions deals with the psychology of the standard of life and of equality of distribution.

9 and 10. There is as yet no economic evidence that equality of individual income, whether derived from earnings or from property, would give the maximum economic advantage. Nor is there evidence that equality of investment income added to unequal earned incomes would give an optimum point for national production. There are three possible assumptions :—

(*a*) That the community should take over all accumulated savings at death and hold them for common enjoyment in new social services in common forms, and in payment for all public services; (*b*) that the population should receive the income and dividends by equal sharing; and (*c*) that compulsory family diffusion would do something to mitigate concentration in Britain and the United States.

I have referred above to effects upon accumulation of savings which I regard as of enormous importance in economic advance. One may learn something from the proved effects of remission of taxation and social expenditure, that direct additions to individual resources soon exhaust their effects as direct additions to that kind of contentment which makes for incentive to greater or better output. The addition becomes the expected and the normal, and there is no evidence that an improved standard of life in fifty years has made, through *incentive* alone, for harder work. It has made a physically better worker, and improved output has proceeded from this cause. In fact, even short-period effects are often disappointing, and a betterment of conditions through improved rate of wage has been partially offset by claims to shorter hours by regulation or absenteeism. Here psychological effects are not identical in different countries, and by no means all the workers aim at working long enough or short enough, as the case may be, to bring in a normal wage. If this is the case for additional direct rewards, it is pretty clear that

[1] Vide *Wealth and Taxable Capacity*, iii., and *The Christian Ethic as an Economic Factor*, Appendix III. Also Bowley: *Distribution of the Product of Industry*; and Chiozza Money: *The National Wealth.*

indirect additions to income through parks, libraries, roads, etc., are much more removed as a direct stimulus to increased economic effort. A small minority of workers will respond to the social idea in which their additional effort will not enrich the few and carry down the unearned property of those few to the select heirs. As regards those whose incentive is being considered from the point of view of deprivation of the privilege of bequest, we may study these later. A more even family diffusion presents a difficult problem, which the example of France does little to elucidate. Those who base their views as to the effects of inheritance not so much upon the facts of inequality as to its extent, its "grossness," do not indicate at what point inequality ceases to be defensible and becomes mischievous. We are entirely without guidance upon this subject, nor does it appear that there will be a consensus of view upon it sufficiently stable for common action. One cannot be dogmatic upon this, because a similar lack of standard exists for fixing proper rates of progression in taxation; but the problem is roughly, though only temporarily, solved in practice, and progressions tend to increase in steepness, the instances to the contrary being very few. Just as ideas about a fair standard of life are relative, so ideas about the weight of taxation are relative too. If anyone doubts this let him read the Parliamentary Debates on the subject of the income-tax at 1*s.* 3*d.* in the £ which was "gross" and "indefensible" and "disastrous." I think, therefore, that it would be exceedingly hard to say at what precise point between 1·3 and 1·8 in the a slope of the Pareto line the line becomes either economically indefensible or an offence against social justice. I am impressed with the importance of a general popular sense of social injustice as a basis for political ideas, in the absence of exact standards, but I distrust its finality as an economic conception.

At the same time, men are moved in economic action by motive, and the motive is no less potent because it is incorrectly or inadequately informed.

It is my conclusion, after much study of men's attitudes, that they are much more affected by comparisons than by absolute facts.[1] Under a state of affairs in which accumulation, inheritance

[1] Dr. Dalton, in touching upon ambiguities and confusions between absolute and relative shares, dismisses this aspect by accepting it. "Though absolute shares are the chief determinant of actual economic welfare, relative shares are one of the determinants of the potential economic welfare, which might be realised under a different scheme of distribution. Human psychology is such that the satisfaction, and hence the economic welfare derived from an income depends not only on the absolute size of this income, but also on its relative size as compared with other incomes." *Op. cit.*, p. 161.

and bequest have been the rule, A finds himself in possession of 10 units out of a total of 10,000, and he sees B enjoying 1,000 out of that total. His assumption may be that if the present practice of inheritance did not exist, but some other practice obtained in its place, he would enjoy some different number, a number, in his judgment, much more than 10—say 20—and B would have less, say 500. Or perhaps he assumes that equality would reign, and that with 500 inhabitants each would enjoy 20. This, so far, is only an argument *post hoc ergo propter hoc*, for, failing demonstration, some other reason may exist for the difference. But it is almost invariably assumed in this, as in other discussions of distribution of wealth, that under a system in which inheritance was not the rule, the aggregate production to be divided would be at least the same—viz. 10,000 units—whereas of course it remains a probability that it would be either less or more, and an improbability that it would be identical, for the inheritance system must have *some* appreciable economic effect on accumulation and production. Suppose, for example, that inheritance, whatever its effects on distribution, has a net beneficial effect on aggregate production; then it might well be that, instead of 10,000 units, there would in its absence be only 8,000, of which A would have 18 and B 500—that is, the distribution is not so extreme, though measured absolutely all are worse off. Now men are not given to the comparison of absolute changes, mainly because they are not available at any moment of time, and are at best historical. They do not compare their own absolute position at one moment in their actual condition with what it would be in hypothetical conditions. Neither does it impress them very much if it is proved to them that under the existing scheme of society they are four or five times as well off absolutely in goods and services as their forefathers in similar circumstances a hundred years ago. They compare themselves with their fellows at the same moment of time. So a man may be even worse off absolutely, but his sense of social justice will be less offended if the difference between himself and B is less marked than it was. He would rather have 10 per cent. of a moderate cake than 8 per cent. of a larger one, because he is always comparing his angle of the sector with another man's angle or the length of the arc, but never thinks of the cubic content. As a matter of fact, any sense of injustice in distribution based upon this attitude of mind is a very poor measure of actual economic welfare.

We can thus postulate three possible positions of the economic aggregate for a community which results when a system of

unlimited inheritance is banned as compared with a system where inheritance is in force. The first is that it would be lower, the second that it would be the same, and the third that it would be greater. But this tells us little about the fortunes of a particular person A of given ability and energy in that community. These three cases may be subdivided to give twelve conceivable positions.

1. *Where the aggregate is lower than* 10,000, *say* 8,000 *units*

	A's actual position.	Wealth distribution and A's sense of justice.
(*a*) A's fraction higher than 1/500th and actual sum greater than 20—say 25 or 1/320th .	better	better
(*b*) A's fraction higher than 1/500th, but actual sum the same—say 20 or 1/400th . .	same	somewhat better
(*c*) A's fraction the same, but actual sum lower —say 16 or 1/500th	worse	
(*d*) A's fraction and actual sum both lower—say 15 or 1/600th	worse	

2. *Where the aggregate is the same*—10,000 *units*

	A's actual position.	Wealth distribution and A's sense of justice.
(*a*) A's fraction higher than 1/500th and actual sum greater than 20—say 25 or 1/400th .	better	better
(*b*) A's fraction and sum the same—20 and 1/500th	same	same
(c) A's fraction worse and actual sum lower—say 16 or 1/625th	worse	worse

3. *Where the aggregate is higher, say* 12,000 *units*

	A's actual position.	Wealth distribution and A's sense of justice.
(*a*) A's fraction higher and actual sum higher—say 1/400th or 30 units . . .	better	better
(*b*) A's fraction the same and actual sum higher —1/500th or 24	better	same
(*c*) A's fraction lower, but actual sum higher—1/545th or 22	better	worse
(*d*) A's fraction lower, but actual sum the same —1/600th or 20	same	worse
(*e*) A's fraction lower and actual sum lower—1/800th or 15	worse	worse

On the assumption that it is a definitely higher *fraction* of the total, as distinct from a definitely better absolute amount, which will give rise to a feeling of greater contentment or a less sense of social injustice, it is clear that there are only three out of twelve possible alternatives which can yield the required result, although there are five possible cases in which A may be actually no worse off and five in which he may *feel* worse off.

Here I may pass to question 13.

To what extent does a *feeling* of social injustice operate to affect a man's motives to make him work harder, or less hard, or work less regularly, and thus in itself become, psychologically, an economic factor affecting the aggregate production? It is only in certain special circumstances that the feeling will lead to harder work. It would do so where an effort to escape the inferior position is great, but this is hardly distinguishable from the incentive which is afforded by the prospect of wealth, and of distinction itself, which must be examined separately. It is probable that with many temperaments the feeling operates to exasperate, not indeed all the time, but at occasional periods when the difference is brought home by some marked external incident. It is probable, therefore, that it contributes to an underlying feeling of unrest, and a complete unwillingness to do more for the wages obtained than the minimum that will pass muster. There must be many thousands, even millions, who continue to accept inequality, not so much of wealth, as of wealth due to *inheritance* as part of the scheme of things against which they have little grievance. They are believers in "luck," and coming into wealth from a forgotten uncle in Australia may move to envy, but it does not lead into malice or resentment. These vast numbers are sufficiently untouched in their economic activity by a sense of social injustice in every-day life to work less faithfully or less hard. There are, however, numbers who, in times of distress and unemployment or labour trouble, can be brought to considerable moral reaction against any display of luxury on the part of the "classes" who do not work for a living. We have heard of the resentment against mining royalties, which as a peculiarly provocative form of inherited wealth are contributory in a marked degree to that lack of good feeling in the mining industry which has a marked economic significance in output. In my judgment the feeling of resentment against wide differences of fortune due to inherited wealth is seldom distinguished in popular feeling from differences due to the right of accumulation as distinct

from inheritance. It is the inequality of reward and the multiplying power of accumulated wealth which excites animosity, not so much that particular part of it which may be due to the inheritance system. I find it difficult to believe that a sense of social injustice *addressed simply to the existence of a system of inheritance* is, in itself, an important economic factor. The average man is unaware that inheritance is not a " natural right " existent at all times and in all places. If he has any sense of injustice it is against inequality in general, and not against inequality as brought about by this system.

I have made many inquiries in America of workmen and of those who are in touch with them and know their psychology, and I am assured that grievances about inheritance as such have no adverse effect whatever on production. Indeed, I was assured that inequality of wealth, to which this is contributory, stirs men to effort, to emulation, to ambition, and gives a dream and a goal. In this sense the inequality serves to urge many to greater efforts than would otherwise be made if all were on a dead level of attainment and power.

At the same time, so far as this country is concerned, if there were no inherited wealth at all, it might be easier for the average mind to accept as inevitably associated with difference in human capacity, and even with the luck of the game, inequalities of fortune arising entirely in their own lifetime. But the rooted practice of the "legitime" in France gives an entirely different outlook upon the abolition of inheritance altogether in its psychological influence.

I can give the answer to question 11 only generally, viz. that ideas concerning the standard of life and fair wages are relative and not absolute. As arrived at subjectively, they are of little use as an indication of economic actualities or possibilities. I have dealt with this elsewhere.[1]

The right of bequest and the right of inheritance respectively may differ as incentives. When we come to consider the effect of an inheritance system, we have four sections to study. We divide, first, on a time basis, into those living at the time wealth is accumulated in response to the stimulus of the system, and those living at later times when the wealth accumulated has been inherited, and when the system has the effect of " dictating " the distribution of currently produced wealth. Again, we divide the people in each period into two functional sections, those who do the accumulating and those who watch others do it.

[1] *Wealth and Taxable Capacity*, iii. Also *Christian Ethic as an Economic Factor*.

Here we are in the field of personal views about human psychology in the mass, although the statistics of the growth of life insurance, and the proportion of wealth left out of the direct family line, are valuable. There is room for research into systematic life insurance statistics, but the indications are clear that the family provision incentive (including a buttress against death duties) is more powerful even than formerly. There is fair statistical evidence that the proportion of amounts bequeathed to distant relatives and "strangers" to those bequeathed to close relatives was relatively stationary in the depressed eighties, and with the rising tide of prosperity in the twenty years before the war, slowly rose and has since fallen. Two kinds of incentive must be distinguished—the first is to save more out of a definite income or work, and the second is to produce more in order that still more may be saved. Two kinds of objectives must be distinguished: first, provision for old age merging into provision for a surviving widow, but irrespective of children's welfare; and, second, provision definitely for children or others. A positive and a negative side must be distinguished: first, the positive right to bequeath may have less importance in creating savings that would otherwise not exist, than the knowledge that all savings would be annihilated would have in stopping savings coming into existence at all. If there were no power to bequeath by *inter vivos* giving, there would be a great tendency to individual *de*cumulation.

My own view, after long consideration of the available data, is that the power to bequeath savings that will remain intact is a most important factor in wealth accumulation and saving, and the desire to leave these savings for the direct line, children and grandchildren, is an important special case of that incentive. For estates over £1,000, 80 per cent. of the married men and 90 per cent. of widowers have children living at the time of their death, while married women and widows have children in 68 to 70 per cent. of the cases. There is no weakening of these figures—if anything the reverse—in the higher sections. In 10 per cent. of the cases of single men there are parents living at the time of death. Intestacy, of course, decreases with the size of the estate, and in the case of single men, for estates exceeding £1,000, over 21 per cent. die intestate; but in the case of married men it is under 10 per cent., and even less for widowers. But I am equally convinced that the mental horizon, which is so powerful an agent in business calculations during life, which reduces the present value of a reversion over fifty years hence to a negligible figure, is even more restricted for events after death. The fate of

one's savings, with the special case of landed estates ruled out, after, say, thirty or forty years, has but a negligible influence on present effort or production. I therefore accept the popular estimate of this incentive, but I emphasise it much more in its immediate effects and belittle it much more in its final effects. This distinction is of great importance in the theory of taxation.

As regards incentive to the recipients, it is possible to exaggerate its influence in making idle men, who would otherwise add more to the mass of production. This effect really exists, but it is a very slight percentage of potential production, however glaring individual cases may be. A man who has great capacity to add to production and raise the general standard, has enough character not to be idle and unproductive simply because he has other means; indeed, he may play less for safety and be a risk-taker and pioneer, and so add to economic welfare. The gilded idlers would not, in any case, have made much greater economic additions than their own subsistence. I am not referring to moral or ethical aspects, of course.

But the effect upon subsequent saving and accumulation is most important. A man with an inherited fortune of £20,000 who works hard and makes, say, £1,500 a year, has no strong incentive to do any more saving out of his combined income of £2,500, and may be content to pass on the £20,000 intact. But for this fortune he might have been a *new* saver. I think there is singularly little statistical evidence of *accumulative* saving, and while inheritance sustains inequality, it does not greatly increase it, the old inequalities of fortune are fed from new inequalities in earning and the immediate bequests made from that source. I doubt, therefore, if the deterrents to saving which high death duties create are so important in their final effects when one considers the increased incentive to new saving (and perhaps effort) which the lesser fortune to the recipient brings about.

IX. Special Cases of Inheritance

(*a*) Land.—One of the most obvious ways in which the laws or practice of inheritance move to a direct economic result is in the sphere of land tenure. Clearly, there will be a *prima facie* difference between the agricultural conditions that would exist after a long period of compulsory division of property on Continental lines as compared with centuries of primogeniture and the desire to maintain large land units intact. There have been certain important changes lately in the law of property which may have

economic reactions, but I am leaving the whole of this field to the succeeding paper by Sir Henry Rew on the effect of land tenure systems on production.

In stressing the importance of the right of bequest without diffusion, reference is frequently made to the continuity of management and interest in large businesses. A man of energy and resource builds up a great business, and one of his incentives is the knowledge that he is training his son to follow him and make it greater and better. The old instinct which vented itself in landed estates passes to commerce. It is urged that the right to bequeath and the power to keep the control in the family has been an actual feature in economic development, in this country at any rate, and a study of the history of typical firms, especially in the north of England, during the first three-quarters of the nineteenth century, does much to confirm it. But it is doubtful whether such a practice occupies a sufficiently important place to-day to deserve a front place in the general argument. Two modern features have seriously influenced it. The first is the growth of an independent managerial class as a profession who can, for a salary, pass from business to business and lead its administration. The second is the facility with which private businesses at the height of success pass into the joint-stock form, often with a public issue of preference shares, and the family taking the cash and retaining the equity.[1] The percentage of profit made by private businesses out of the total changed from 70 to a little over 30 in a period of forty years. It would be a bold thing to say that a big business depended to any serious extent upon continuation of direct family control or interest for a number of generations. On the contrary, the infusion of new blood and outside interest has rejuvenated many a business that has been living on its traditions. The death of a rich part-owner rarely affects modern business. The proportion of wealth, excluding War Loan, passing in the form of shares at death, has increased from 32 to 48 per cent. of the whole in ten years. However important this element of inheritance may have been in the past, it is now relatively insignificant in dealing with the whole mass of accumulated saving.

A correspondent who raises no claim to be an economist sends me a thoughtful letter in which he says :—

[1] *Vide* Chapman and Ashton on "Sizes of Businesses" (*Statistical Journal*, 1914) and "Growth of Textile Businesses" (*S.J.*, 1926). Out of 221 concerns in 1884, 127 were private firms with a modal size of 20,000 spindles, the mode for companies being about 80,000. In 1924, out of 203, only 5 were private, with 20,000 spindles as a maximum. The mode of the companies was about 110,000 spindles.

"I live in the country and have some opportunities of observing and reflecting upon the *more primitive social and economic order* of the countryside, centuries behind the specialised professional labour of the city only a dozen miles away. As long as sons generally followed their father's trade—as I suppose they mostly did in England until a century ago—it seemed reasonable that *a son should inherit his father's tools*, and this not so much because he is a son as *because he is a junior partner in business.* For any outside body, parish, county, or state to step in with an extraneous claim to these tools or to some of them is simply to shatter the economic order and the chance of maintaining production just when the business is hard hit by the loss of its senior partner. To-day 'tools' might be interpreted in the city to include a factory and all its machinery; in the country 1,000 acres of woodland is a means of production using the sun's radiant energy instead of coal. The limited liability company is a shock-absorbing system in the economic order of the city, and factory work goes on in spite of the funeral of a director. In the more primitive order of the country the death of the landlord may paralyse his estate. Even if one were to accept the argument that big estates ought to be broken up into small estates (no matter whether these would be more or less remunerative per acre), one effect of heavy death duties levied on rural estate is to withdraw capital from agriculture at a most inconvenient moment. Death duties on a landlord's personal effects—pictures, furniture, etc.—might have one sort of justification—the distribution of luxuries. Death duties (in excess of one year's rent on land) may mean the paralysis of repairs, fencing, draining, planting, etc., for years and inhibition of capital development for decades. It might be more defensible if death duties on land all went to the Board of Agriculture to be redistributed to the same industry in the form of agricultural education, expert advice, new breeding stock, etc. But the drain on the *capital sources of the industry* (to be distinguished from the drain on individuals) has widespread effects which need not be confused with the whinings of discomforted individuals. The old order accepted disposition by will to the family; it was justified as long as the family continued the business. If the families do not continue the business, would it be wise to initiate a new order in which *inheritance should go by occupation*, so that if a manufacturer died intestate his employees would succeed to his factory, so that legacy duties should differentiate not in favour of near relatives, but in favour of those in the same business, so that if there were any death duties these should go not to the

State but to the trades union, or in bonus shares to the employees?"

Businesses both of landowning and of commerce have become so impersonalised that no great case for unlimited powers of bequest for economic reasons can be based on the objective personal link. We are thrown back on the subjective factors.

In the sixth group, with questions 15 to 17, we touch upon the large question of the influence of taxation, and it would take me too far afield to deal with them at all adequately, because they involve comparisons with the effect of alternative methods of raising revenue. But the Report of the Colwyn Committee on Taxation and the National Debt, with which I am concerned, will, when issued, probably deal with many features germane to this address. I will content myself with saying that if practical considerations are ignored, to raise a given revenue with some reference to graduation by order of succession and time on the Rignano principle, and to extend the graduation of taxation of bequests outwards by relationship, would, in my judgment, offer some important economic advantages over the present methods of raising the revenue.

XI. Inheritance of Ability

The principle of the inheritance of wealth is complicated by its biological affiliations. A man has certain qualities which make for distinction and success in himself and for unusual service at the same time to the community. His son may inherit a full or partial measure, and this inheritance is a factor of economic importance, making both for an uneven distribution of the aggregate of wealth, which is obvious, and also, what is less obvious, for a greater economic aggregate for all to share. Now such inherited powers, so far as they exist, are a part of nature, and cannot be gainsaid, nor abrogated nor repealed. But in a developed national science of eugenics, in a socialistic community with a certain type of socialist ideal, in which equality of division of wealth (or wealth-making power) is counted as of greater importance than the greatest accretion to aggregate wealth unevenly divided (by which the individual benefit may be even greater after subtracting the rich man's portion), it would be logical to direct human mating so that inherited tendencies to

superior wealth-making powers should be diffused or defeated. If it were found that the mating of types A and B would perpetuate a characteristic particularly forceful in economic affairs for the individual exercising that characteristic under the hedonic stimulus, and not exercising it under any other, but that the mating of A and C would obliterate it, then the obvious duty of those who put equality of wealth as paramount would be to promote eugenic laws that discouraged A and B and encouraged A and C to matrimony. But I do not wish to pursue this type of eugenic speculation. I am dealing with the inheritance of qualities, only because of the argument that a man's accumulated wealth is an objective extension of his personality, a material result of his qualities, and that if nature passes on the effective element of his personality to his heirs this extension logically and legitimately, by social sanction, goes with them.

In my judgment, while we are apt to regard the cultivation of mental, moral and physical qualities, and their effect upon future descendants, as biological problems, internal to the human organism, we also tend to regard those extensions of a man's personality which are reflected in his ability to acquire and accumulate belongings around him, as purely economic. No such hard and fast line is final. A man may enrich his life by the expenditure of a part of his income in immediate travel and widening of his powers and knowledge, or he may externalise it by the acquisition of works of art, or he may put it into the field of economics by saving that portion of his income so that it will yield him an income which will perhaps enable him to travel or to extend his personality in some way or other in years to come, after he has ceased to be an earner. Similarly in his treatment of his children. For one he may spend a large amount of money to make him a professional man, a doctor or solicitor, in which case the bequest or inheritance goes on without any obvious sign of his "leaving" wealth. To another son he may leave an equivalent amount to be invested in a business, and if they are men of equal ability it may be assumed that the income from personal effort and invested capital will be similar in the business and in the profession. In the one case the effect of inheritance is clear; in the other it is masked. Nothing can stop him bequeathing certain personal qualities of character and the environment of early life to his children, and they perhaps, in a less marked degree, to his grandchildren, but that extension of his personality which represents the modification of their environment by their control over saved wealth seems to be on another footing. But a man conscious

that his sons were "fitted" in the best sense, and that they ought to survive, could help their survival both by personal training and also by accumulation of wealth which he bequeaths to them, in either case representing personal self-denial, and in either case representing some quality imposed upon their human environment. Whetham, in *The Family and the Nation*, says that unless the fittest to survive hand on their qualities to a larger number of descendants than are left by the failures, natural selection cannot act. It is of no use for an organism individually to survive unless it transmits the character which enabled it to do so to a preponderating number in succeeding generations. A struggle for life and the survival of the fittest are meaningless alone; the qualities of the fittest must survive superabundantly his own fleeting existence if the struggle and the survival are to produce any good effects on the race. The bequest of some investment income to a man undoubtedly enables that man to be freed from some of life's cares, and in that sense to devote himself more closely to his pursuits, and to make him more fitted to survive. The qualities that brought about the original accumulation have had social advantages, and the reflection of those qualities is in their tangible objective results *plus* the subjective capacity for continuation of them. Whether qualities are inherited in a great measure or a small, and whether they are important as economic factors, I am not greatly concerned, for such inheritance, so far as it is a fact, is unalterable, and I am pursuing this subject more with its bearing upon practical social action in mind. So if biological inheritance is marked and substantial, the argument for transmission of accompanying wealth may be relevant. But if biological inheritance is wayward or unimportant, the bequest argument, however closely knit to such heredity, has certainly no *greater* force. Suppose that it could be shown that only in one case in ten thousand does the distinctive personality of a parent descend to his son. Then, even if the argument that objective extensions of that personality should not be separated from it were fully valid, it could only apply to one case in ten thousand. Moreover, even if the biological descent were effective one hundred per cent., the doctrine does nothing to support freedom of bequest or primogeniture or the British ideas at all. If the argument is valid at all, since every child would share its parents' personality, every child should share the parents' wealth, and the doctrine leads towards family diffusion of fortunes on the Continental principle of legitime, and would discontinue all bequest out of the direct blood descent, to collaterals, etc. Besides, even in the

direct line any force the argument possesses is greatly weakened. If a man can claim on biological grounds his inheritance of ability from a great-grandparent to be a merely fractional part, qualified and diffused by his inheritance from seven other primary sources, then his claim to rank superior to the rest of the community for the inheritance of the whole of the wealth is equally tenuous. Nevertheless, the biological argument may have some economic "point" so far as the first generation is concerned, mainly when it is viewed in its eugenic setting, (1) *Heredity in genius exists to a definite extent, and this fact has economic value to the community*, since, if one dare put a qualitative aspect in quantitative terms, a community of 100 persons of n degrees of ability *plus* one with 100 n degrees, will reach higher economic levels than a community of 101 persons each with $n + 1$ degrees.

The starting-point of any consideration of the inheritance of ability is Sir Francis Galton's great work on *Hereditary Genius*, published in 1869, and recently quoted with approval by the Whethams in their book on *The Family and the Nation*, in which the most recent eugenic and biological views confirm Galton's works. Galton found that the proportion of eminent men in the population—that is, eminent in the sense of having manifested unusual ability—was about 250 in the million, or about ·025 per cent., and it was found that the chance of the son of a man of great ability, such as a judge, himself showing great ability, was five hundred times as great as that for a man taken at random. (You must refer to these works to see the effect, upon these chances, of marriage with an able or an ordinary woman respectively.) The Whethams state as a conclusion : "As long as ability marries ability a large proportion of able offspring is a certainty, and ability is a more valuable heirloom in a family than mere material wealth, which, moreover, will follow ability sooner or later."

They say : "Since the assumption of the responsibility of offspring falls on those of the younger generation whose financial position, even in the upper classes, is usually not yet secure, it should become an increasing habit for the older generation, where they have it, to distribute a substantial part of their property during their lifetime. Such a distribution should not excite the animosity of the Chancellor of the Exchequer. Security or affluence often comes too late to make easy the heavy burdens of early maturity, and when it comes provides but bitter reflection over lost opportunity. Those in the prime of life can make the best use of wealth in the service of the nation. May each

generation as they grow older learn to relinquish it in time to watch their successors meet their responsibilities fully."

Let us assume that the peak responsibility of the average married couple is reached at a period in their lives when they have not got to their highest earning power, and that they could do better for their families—educate them better, and bring them up in a superior style—if they had some assistance from outside.

There could be no better eugenic or sociological institution than a kind of moving annuity which should pass from generation to generation, not at the death of each person, but from him to his children at a point when his personal need for it has become less, and when his son's need for it has become greatest. The inheritance would not, therefore, be one passing at death, but would be one passing at middle life; it would be like a permanent endowment of the family at its most difficult periods, and there could be no more honourable object of ambition than to endow one's family and descendants in this way, because it would be of the highest eugenic value to the community. In middle life a man cannot both save for his old age and retirement and also spend the best of his income upon his family. It is here that the inheritance from the previous generation, coming at an earlier date, would enable him to be sure of this fund in time, and to save his own surplus towards his own old age, after he had passed on what might be called the succession, to his children.

What, however, is the upshot of a "survey" of the biological side of inheritance upon the economic aspects of inheritance of wealth without a more minute analysis of its trend?

The more we survey the biological field the less do we find justification for inheritance of wealth by others than direct descendants or dependents. On the other hand, it does seem to me that we derive considerable support for the orthodox view that the power to make bequests in the direct line is an important economic factor in the accumulation of capital and in great personal effort. It does not, indeed, justify that kind of *inter vivos* giving, which means the escape almost on the deathbed, or within three years from it, from the Chancellor's net, but it *does* support the scheme of transmission of wealth in middle life as an economic factor of some importance, and a worthy use of accumulated wealth, which cannot be regarded as a net toll upon the community in view of its indirect contribution to the community. The argument, of course, spends its force as generations go on.

XII. Conclusions

It will have been seen that the answers we have to the critical questions put at the outset vary in completeness and conclusiveness, and that in certain fields fruitful research is possible. Certain elements that have at one time been highly significant are now of less importance, while others are emerging.

My own present views, which, of course, are provisional in the sense that they are open to modification as new facts emerge and as analysis reveals tendencies not previously put into the balance, are as follows :—

1. In the past century unprecedented economic advance has been due in the main to the greater use of invention and fixed capital. This has, in turn, made new accumulation of savings possible, and has been made possible by the growing fund of accumulation. In this accumulation the principle of inheritance or bequest has played an important part. Where there has been freedom from the shackles of a family diffusion system the greater progress has been possible. The individual motives which are operative under such a system are stronger than ever, but operate over a diminishing part of the field; they are also stronger over a short period, and of diminishing effect over a long period of time. In other words, communal saving *via* company reserves (not subjected to the individual volition for saving against spending) and *via* repayment of debt through funds derived from taxation, and *via* large capital efforts (housing, etc.) partly financed through taxation, is an increasing proportion of the total. Although some of the values set up by such collective sums may figure in individual estate values, they are not created or destroyed by interference with, or promotion of, the right of inheritance.

2. The remaining considerable section of capital accumulation is still powerfully affected by inheritance rights, and would be more affected than heretofore by interference with rights in the direct line, though less affected than hitherto by rights out of that line. More considerable changes might be made in the *width* of the rights than hitherto without seriously affecting accumulation. On the other hand, the time element is changing—accumulation is just as sensitive in the immediate provision and immediate rights of family enjoyment, but less sensitive to change (by restriction or encouragement) in the most remote rights.

3. The sense of " social injustice " is directed against inequality of wealth, of which inequality through inheritance is not now the larger part. This sense, if limited to inheritance features, has

less economic reaction than is generally supposed. In any case, it is a sense which is not scientifically based. I think it probable that, through the inequalities due to the system in which inheritance has a part, the average man has a slightly smaller *proportionate* share of the aggregate than he would have had if there had been no inheritance system, but a substantially larger *absolute* amount, because he shares a larger aggregate or better standard of life than he would have had under a system with no such aid to accumulation. Whether under these circumstances he is justified in having a sense of injustice, whether it is better for human welfare to have a low standard without envy, or a higher one with envy, is a matter lying beyond economics in the sphere of social psychology and philosophy.

4. The particular claims for unlimited rights of bequest, as settling the best economic direction and control, are gradually losing their force.

5. The principles upon which death duty taxation is at present based, though they may be the best available when administrative aspects are included, might be improved upon by closer regard to the foregoing analysis. The actual sum now being raised is not necessarily more harmful economically than a similar sum raised by additional income-tax, but it is more repressive in accumulation than the same sum would be if a less amount were raised at lower rates on the first succession and the balance were raised at higher rates on succeeding successions.[1]

JOSIAH STAMP

[1] The practical aspects are discussed in the *Statistical Journal*, March 1926

A NARRATIVE OF THE GENERAL STRIKE OF 1926

§ 1. The following record of the main events, so far as they are yet known to the public, connected with the earlier part of the great coal stoppage of 1926 and the general strike which accompanied it may be found useful for future reference.

No attempt will be made to recount the complicated story of the coal problem prior to the issue of the Samuel Commission's Report, nor the equally tangled history of the project of a general strike and of the specific proposals made at various times for combined action between the Miners' Federation and other Trade Unions. But it is essential to the understanding of subsequent events to recall briefly the part played by the General Council of the Trades Union Congress in the coal crisis of July 1925 and in the following months. On July 11, 1925, when the situation between the coal-owners and the miners was already acute, the General Council issued a manifesto recording their complete support of the miners, and announcing the appointment of a special committee to keep in touch with the negotiations. On July 23 the Miners' Executive "placed their case unreservedly in the hands" of the General Council, and the latter offered to meet the Prime Minister, with whom, during the next few days, their special committee was several times in consultation. On July 30 the Prime Minister announced in the morning that no subsidy could be given to the coal-mining industry, and in the evening that financial assistance would be given for a limited period. Between these two events a conference of the Executives of the Trade Unions affiliated to the Trades Union Congress had "pledged itself to place the whole weight of the trade union movement at the disposal of the special committee in defence of the miners' standards," thereby endorsing the decision reached by the Railway Unions a few days earlier, to the effect that in the event of a coal stoppage no coal should be moved.

The inference was widely drawn that the Government's *volte-face* was due in the main to this threat of sympathetic action, and the possibility was envisaged in many quarters that a similar situation might arise at the end of April 1926, when the subsidy given to the coal industry was due to expire. A voluntary body entitled the Organisation for the Maintenance of Supplies set to

work to enrol citizens pledged to co-operate in the maintenance of order and essential services in the event of a national stoppage; its existence was made known to the public on September 25, and it elicited a few days later a blessing from the Home Secretary, and a protest from Mr. Macdonald, who complained that "private enterprise is being entrusted to maintain order in such a way as to make a breach of order inevitable." In the Labour world, the forces of moderation won during the autumn a series of victories. At the meeting of the Trades Union Congress in early September, a resolution empowering the General Council to call for a stoppage of work by any affiliated Union in support of another Union which was "defending a vital Trade Union principle" was not carried, but referred to the General Council for further examination and report.[1] At the same meeting the well-known moderate leaders Mr. Pugh and Mr. Thomas were elected to the vacancies on the General Council caused by the retirement of more fiery spirits; while the Labour Party Conference held at the end of the same month emphatically repudiated the principles of Communism.

Nevertheless the mining situation was not forgotten, and it appears that in January the Special Industrial Committee[2] of the General Council set itself to consider various types of sympathetic action, including that which was ultimately adopted. An unsuccessful attempt was made to elicit a promise of support from the Co-operative Movement, which was still out of pocket as the result of advances made during the stoppage of 1921. A series of meetings was held with representatives of the Miners' Federation, and on February 19 the Industrial Committee issued a declaration to which the miners' leaders often subsequently appealed. "The attitude of the Trade Union movement was made perfectly clear last July, namely, that it would stand firmly and unitedly against any attempt further to degrade the standard of life in the coal-fields. There was to be no reduction in wages, no increase in working hours, and no interference with the principle of national agreements. This is the position of the Trade Union movement to-day."

§ 2. A new chapter opens with the publication on March 10 of the Samuel Commission's Report. The Prime Minister and

[1] In the course of the discussion Mr. Cook declared that the Trade Union Congress was the Parliament of the future, and appealed to members to make it so: while Mr. Brownlie, of the A.E.U., urged that "the resolution would take away from the rank and file that which they had regarded as an inalienable right, the right to be consulted when called upon to strike."

[2] Hereafter referred to simply as "The Industrial Committee."

the Industrial Committee each issued an appeal for silence and careful study, and a fortnight later the Prime Minister announced that the Government would accept the Report provided the other parties did so, and disclosed further, in response to an inquiry by Mr. Smith (President of the Miners' Federation), that he would be prepared to grant further limited and temporary assistance to the industry provided that the other parties could reach agreement by April 30. A list of fourteen points (ominous number) requiring action by the Government was circulated. On the following day the negotiating committees of the owners and the miners met, only to adjourn immediately, and the Industrial Committee, after consultation with the miners' officers, "re-affirmed its decision to support the miners in their efforts to secure a reasonable settlement."

On April 1 the Central Committee of the Mining Association communicated to the Executive Committee of the Miners' Federation their commentary on the Report—a commentary whose tenor may be summed up as one of formal and frigid acquiescence. It was at this meeting that the cleavage appeared which was to dominate the controversy for the next month. The owners naturally endorsed the Commission's proposal (subjected to criticism by Professor Jones in the June number of this JOURNAL) that the minimum percentage additions to standard wages should vary in the different districts; but they further, fortifying themselves with an unfortunate ambiguity in the Report (pointed out in the same article), proposed that these varying minima should be decided by negotiation in the districts themselves, and only submitted to a national conference for final approval. The miners, in their immediate reply, protested with equal emphasis against district negotiations, varying district minima, and any reduction of wages. In their written observations on the Report, submitted twelve days later at a renewed meeting with the owners, this attitude was no longer maintained; the insistence on national negotiations for framing of minimum percentages remained, but no wage-claim inconsistent with the findings of the Commission was put forward. Between these two dates, however, a grave step had been taken. On April 9 a delegate conference of the Miners' Federation had, on the recommendation of the Executive, passed a resolution advising the districts to adhere to the principle of a national minimum percentage and to decline all proposals for lower wages or longer hours. It is plain from a letter not published at the time that this resolution was not put forward with the approval of the

Industrial Committee, who were "of the opinion that matters have not yet reached a stage when any final decision of the General Council's policy can be made," and who confined themselves in their public statement to a general declaration of support, coupled with a recommendation that negotiations should be continued with the owners with a view to clearing up ambiguities and reducing points of difference. From this point onwards the Miners' Executive held themselves bound by the resolution passed, at their own instance, by the Delegate Conference—a circumstance of which the owners, at the renewed meeting on April 13, were not slow to take advantage, and which went far to neutralise the favourable impression which might otherwise have been created by the moderate tone of the miners' written commentary on the Report.

No progress was made at the meeting on April 13, and during the next few days the owners posted their notices in the districts giving the requisite fortnight's warning of the termination of existing contracts, and prepared to open district negotiations. This action brought the Industrial Committee into line with the miners in protest against the abandonment of national negotiations, and also instigated the Prime Minister to take a hand in the proceedings, of which on April 22, at the request of the Industrial Committee, he finally took charge. It was not, however, till late on the night of the 28th, after two abortive meetings of the protagonists (on April 22 and April 27–28) and numerous interviews between the Prime Minister and the several parties, that the owners were prevailed upon definitely to modify their attitude in this crucial respect. Meanwhile their district wage offers had been duly made and duly refused. Based on the assumption that the price of coal would remain at the low level to which it had sunk during the months of subsidy, these offers went far beyond the average 10 per cent. cost hinted at by the Commission, and involved, in the case of the exporting districts, a fall to pre-war money rates. As an alternative to these proposals the owners eventually put forward, at the joint meeting of April 28, a set of proposals based on the working of a 48-hour week, which the Miners' Executive refused to consider.[1] Nor did the Miners' Executive attempt to obtain, from the Delegate Conference which assembled on April 28, any relaxation of the fetters by which they were bound.

[1] The ground for these proposals was prepared by a confidential notice issued to the Press from the Conservative and Unionist Central Office on April 26, stating that "it is desirable to concentrate attention upon the question of hours rather than upon the reduction in wages."

The position at this point—two days before the expiry of the notices—may be thus summarised. The miners had refused to admit the possibility of a varying district minimum percentage or of the measure of wage-reduction indicated in the Report. The owners, by riding off on district agreements in a manner not contemplated by the Commission, unless with the consent of both parties, by the extravagance of their wage-proposals, and finally by reverting to the expedient, expressly condemned by the Commission, of an eight-hour day, had confirmed the miners in their intransigeance, and thrown them into the arms of the Industrial Committee. The Prime Minister, while untiring in his efforts to bring the parties together, had not felt called upon either to indicate his own views as to an equitable wage-settlement, or to discountenance the re-opening of the question of hours, or to press on with measures of reorganisation. Indeed, owing to the imminent expiry of the notices, the whole question of reorganisation had been allowed to fall into the background, in spite of efforts by the Industrial Committee to keep it to the fore and thereby render less unpalatable to the miners that wage-reduction which the Committee seem to have known to be ultimately inevitable.

§ 3. A conference of Executives of Trade Unions affiliated to the Trades Union Congress had been summoned, "as a preliminary, provisional and precautionary measure," and "in order that the Trade Union movement as a whole may be fully informed of the position," to meet on Thursday, April 19. In the presidential address of Mr. Pugh to this conference, and in a long memorandum submitted to it by the General Council, the question of reorganisation was given further prominence, stress being laid on the Commission's pronouncement that "before any sacrifices are asked from those engaged in the industry, it shall be definitely agreed between them that all possible means for improving its organisation and increasing its efficiency should be adopted as speedily as the circumstances in each case allow." A resolution of the conference authorised the continuance of negotiations, "provided the impending lock-out of the mine-workers is not enforced."

On April 30 the owners produced their final offer—a uniform reduction of the national minimum addition to 1914 rates from $33\frac{1}{3}$ per cent. to 20 per cent. (*i.e.* to the 1921 figure), coupled with an extension of the working day to eight hours. This offer was communicated by the Prime Minister to the Miners' Executive at 1.15 p.m., together with an assurance that the Government were

willing to give effect "to such of the proposals in the Report as we believe will be of benefit to the industry," and in particular proposed to set up at once an authoritative inquiry into the matters of selling organisations and amalgamations. The owners' offer was emphatically rejected by the miners at 6 p.m., and the memorandum of April 29 submitted to the Prime Minister as an alternative basis of discussion. The Prime Minister held himself unable either to coerce the owners into withdrawing the notices, or to offer such financial assistance as would induce them to do so unless he received definite assurances that the miners were prepared to accept a reduction of wages pending the process of reorganisation. The miners, on the other hand, stated in writing that they were "not prepared to accept a reduction in wages as a preliminary to the reorganisation of the industry," but that they would be "prepared to give full consideration to all the difficulties connected with the industry when the schemes for such reorganisation will have been initiated by the Government."

It was on the attempt to give *viva voce* precision to this statement that, late on the evening of the 30th, the negotiations broke down. According to the Government spokesman, "Mr. Herbert Smith, in answer to questions put to him, made it perfectly definite and clear that he would not accept any idea of any reduction at all in the interim period." According to Mr. Smith's second and amended version of his own remarks, given next day at the conference of Union Executives, "what he had intended to imply was that he was prepared to examine the Report from page one to the last page and stand by the result as finally reached." The Industrial Committee,[1] were satisfied that this explanation "could only imply an acceptance of all the implications in the Report of the Royal Commission, including the possible readjustment of wages if the rest of the recommendations of the Report were also to apply." A last minute offer of the Government to set up a joint committee of miners and owners on the whole question of reorganisation, conditional as that offer was on a previous acceptance by the miners of the principle of wage-reductions, did not modify the decision of the Industrial Committee to support the miners "in refusing to agree to any reduction of wages as a preliminary to satisfactory arrangements being made for the application of the general recommendations of the Royal Commission's Report."

A Royal Proclamation declaring a state of emergency had been prepared during the afternoon, and though it was not, in fact,

[1] According to the account subsequently published by Mr. Bromley in the *Locomotive Journal*.

issued till the following day, a notice announcing its issue had been sent to press, but was not published.

At 11.30 p.m. on April 30 the Conference of Union Executives, which had been adjourned several times during the day, was informed by the Industrial Committee of the breakdown of negotiations; and after the Conference dispersed a printed scheme for co-ordinated action in support of the miners was handed to the Secretaries of the several Unions. The particular scheme appears to have come as a surprise to the miners' leaders, who had expected a mere refusal to handle coal, and it is not known when, on whose initiative, or for what reasons it had been given preference by the General Council.[1] The scheme provided for the cessation of work at midnight on May 3 in the transport trades, the iron and steel trade, the printing trade (including the Press), the metal and heavy chemical groups, and the building trade (except housing and hospital work). The Unions connected with the supply of electricity were recommended to co-operate with the object of ceasing to supply power. Sanitary services were to be continued, hospitals, etc. to be efficiently supplied, and the Unions concerned with the supply of food to do everything in their power to organise the distribution of milk and food for the whole of the population. Other Unions were to be called out later, at the discretion of the General Council, as a "second line." These proposals were considered by the several Executives on the morning of May 1, and at a meeting of the Conference at 2 p.m. it was announced, amid great enthusiasm, that Unions representing a membership of 3,653,527 had declared in favour of the policy, while Unions representing only 49,511 had declared against. At 5 p.m. the strike notices were sent out by the Executives of the Unions concerned.

§ 4. But negotiations were not yet at an end. The General Council informed the Prime Minister that the conduct of the dispute had been handed over to them—it became plain later that this did not mean that they regarded themselves as free to take binding decisions without further consultation with the miners—and the Industrial Committee was invited to meet him and other members of the Cabinet at 8 p.m. For 5½ hours attempts were made—first by the full meeting, then by a smaller body consisting of the Prime Minister, Lord Birkenhead and Sir A. Steel-Maitland with Sir Horace Wilson on the one hand and Mr. Pugh, Mr. Thomas and Mr. Swales with Mr. Citrine on the

[1] It must obviously have been in readiness before the breakdown of negotiations on April 30. According to Mr. Hamilton Fyfe (*Behind the Scenes of the Great Strike*, p. 78) the actual arrangements began to be made on Wednesday, April 28.

other—to clear up the Delphic obscurity of Mr. Smith's utterances, and the groups finally parted with the following formula for the consideration of those whom they represented :—"The Prime Minister has satisfied himself as a result of the conversations he has had with the representatives of the T.U.C. that if negotiations are continued (it being understood that the notices cease to operate) the representatives of the T.U.C. are confident that a settlement will be reached on the lines of the Report within a fortnight." The Industrial Committee put this formula before Mr. Cook (Secretary of the Miners' Federation) at 10 a.m. on Sunday the 2nd, and pressed him to admit to them (though not, of course, at this stage, in public) the need for a reduction in wages. Mr. Cook protested vehemently, reminding the Committee in particular of their declaration of February (see § 1); and since the rest of the Miners' Executive were (to the surprise and annoyance of the Industrial Committee) out of London, the sub-committee of three returned to Downing Street at 9 p.m. unable to pledge themselves definitely to the formula, to which, however, they announced their own adhesion in principle.

According to the Government account, the joint body of six, after several hours of discussion, evolved the following alternative formula, which was written down by Lord Birkenhead :—"We will urge the miners to authorise us to enter on a discussion with the understanding that they and we accept the Report as a basis of settlement, and we approach it with the knowledge that it may involve some reduction of wages." According to Mr. Pugh, no such formula was ever in the possession of the Trade Union leaders.[1] At any rate *some* formula—whether this, or the earlier one, or both, or several—was put before the whole General Council and several members of the Miners' Federation, who had been recalled from the country and had reached Downing Street shortly before midnight. Mr. Smith appears to have delivered a further oracle to the effect that "the miners were not prepared to resume work on a reduction of wages."[2] But the discussion was cut short: for while the Birkenhead formula was under discussion by the Cabinet, news arrived that the *Daily Mail* printers had refused[3] to print a leading article entitled "For King

[1] *British Worker*, May 11. It is clearly inconceivable that the Government subsequently invented this formula; but it seems not impossible that at this stage some of the Union leaders should have been genuinely unaware what precise form of words they were supposed to be discussing.

[2] Mr. Cook in *New Leader*, June 4.

[3] Without, as it transpired, the knowledge of the General Council, or, it is to be presumed, official instructions from the Executives of their Unions. According

and Country." What exactly occurred in the Cabinet at this juncture will presumably never be known. It is clear that there was a strong party (to whose ranks rumour assigns Mr. Bridgeman, Mr. Amery and Mr. Neville Chamberlain) who were opposed in any case to the continuance of negotiations, and who regarded the Birkenhead formula as "far too narrow an undertaking." [1] It has been confidently asserted that this party forced the Prime Minister's hand by a threat of resignation. At all events the upshot was that the General Council, while still engaged in exerting pressure upon the miners' leaders, received, from the hands of the Prime Minister himself, a written communication from the Cabinet stating that "since the discussions which have taken place between Ministers and members of the Trades Union Committee," [2] it had come to the knowledge of the Government not only that actual strike orders had been sent out by the Executives of the Unions, but that "certain overt acts have already taken place, including gross interference with the freedom of the Press." "His Majesty's Government, therefore, before it can continue negotiations, must require from the Trades Union Committee both a repudiation of the actions referred to which have already taken place and the immediate and unconditional withdrawal of the instructions for a general strike." This letter created consternation among the General Council, and "a deputation went to the room where the Government representatives were to ask what all that was about and to explain the whole situation to them, but when the deputation arrived at that room they found the door locked and the whole place in darkness." [3] A statement was issued next day protesting against the tone of the Government's ultimatum, disclaiming responsiblity for the "overt acts" complained of, and regretting that no opportunity had been given to investigate them.

On Monday, May 3, a joint committee of the Industrial Committee and the Miners' Executive, consisting of Messrs. Pugh, Bevin and Citrine, with Messrs. Smith, Cook and Richardson,

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to Mr. Hamilton Fyfe (*Behind the Scenes of the Great Strike*, p. 22) the Secretary of the Union chiefly concerned, the "Natsopas," visited the *Daily Mail* offices during the course of the dispute, and "made it plain that, as Secretary, he would have nothing to do with a strike." This was not, however, the only instance of Press interference which had occurred, and there seems to have been something like a concerted policy of censorship at work.

[1] Article by "A Cabinet Minister," *British Gazette*, May 7.

[2] The last of those discussions can only have been a few minutes old. According to Sir Douglas Hogg (*British Gazette*, May 11) the fact of the despatch of strike instructions had been known to the Cabinet since the morning. The decision to strike had, of course, been public property for thirty-four hours.

[3] Mr. Macdonald, as reported in *The Times*, May 6.

unanimously agreed upon a basis for the re-opening of negotiations. This document provided for the setting up of a National Mining Board, which, after examination and decision of the steps to be taken with regard to reorganisation, should "determine what adjustments shall be made, if any, by all parties necessary to cover the interim period, subject to the maintenance of a national minimum and the Seven Hours Act." The document was adopted by the General Council, but (in spite of its endorsement by Messrs. Smith and Cook) was only approved (and that by a majority of 12 against 6) by the Miners' Executive subject to the crucial amendment of the words "*a* national minimum" into "*the* national minumum." The General Council declined to accept this amendment on the ground that in the document as it stood any consideration of a wages adjustment was made conditional on such consideration being shown to be necessary after full inquiry, and when provision had been made for complying with the other recommendations in the Report. The unamended document (which was not known to the public at the time) became thereafter the basis of the General Council's policy.

In the debate in the House on Monday evening, Mr. Thomas made one more public bid for peace. But the speech of the Prime Minister, resolute in tenor though pacific in tone, and that of Mr. Churchill declaring that the threat to the Constitution must be resisted "rigidly, resolutely, inflexibly and to the end," reaffirmed the adherence of the Government to the demand for unconditional surrender as a prelude to the re-opening of negotiations. To that the General Council felt unable to accede, and though it seems that during the evening Ministers and Trade Union members were once more in personal contact the strike notices were allowed to expire at midnight.

§ 5. It is impossible in a brief account to give an adequate picture of the actual conduct of the strike, or of the counter-measures adopted by the Government and the public. The response to the strike order of the Executives of the Unions was complete (the Executive of the Seamen's Union declined to order a strike without a ballot, which when ultimately taken showed an adverse majority), and on May 4 about $1\frac{1}{2}$ million men (exclusive of the coal-miners) struck work.[1] By the beginning of the second

[1] Say

	Mines	850,000
	Railways	450,000
	Transport	400,000
	Building	300,000
	Iron and Steel	150,000
	Printing, etc.	150,000
		2,300,000

week there had been a certain amount of drifting back in some trades: at that time something like 15 per cent. of the regular staffs of the railways were at work: and less than half the men in the engineering and shipbuilding trades responded to the call issued to them, as the "second line," on May 11. On the whole, up to that date, a great and impressive demonstration of solidarity had been given, but it was not to be expected that it should be much longer maintained unimpaired. The actual organisation of the strike was under the charge of Mr. Bevin and Mr. Purcell.

The Government's plan was based on the principle of decentralisation and self-help, and involved the division of England into ten districts, each under the control of a Civil Commissioner, responsible to the Chief Civil Commissioner, Sir W. Mitchell-Thomson, the Postmaster-General. An appeal for volunteers was issued on Sunday night, May 2, and met with speedy response. The Organisation for the Maintenance of Supplies put itself promptly at the disposal of the Government, and vanished as a separate entity. The total number of volunteers for all purposes eventually reached 488,155.

The offer of the Trade Unions to assist in the maintenance of food supplies was ignored. In some places local strike committees issued permits for the movement of food, but after a few days these tentative experiments in dyarchy were discontinued. The Government's food plans worked with astonishing smoothness and success. The milk supply of London was taken entirely under Government control, a huge depot being established in Hyde Park: otherwise the distribution of food was in the main undertaken by the traders themselves, organised locally, under the general direction and co-ordination of a special staff at the Board of Trade. Serious obstruction occurred at first at the London docks, and for a few days flour and meat were moved into the centre of London by armed envoys. The Port of London was almost completely opened up by May 12. A supply of yeast was imported in naval destroyers. There was obstruction in the Manchester docks on May 10, and on the same day strikes occurred in several flour mills in Lancashire. There was no commandeering of food, no price-control or rationing, and virtually no rise of prices.

A steadily increasing number of local passenger services and a few through services were run by the railway companies, at the cost of one or two fatal accidents, with the help of volunteer labour: the transport of goods at first ceased almost entirely, and

later was practically confined to essential food-stuffs. Omnibus, tube and tram transport, in London [1] and the provinces, was increasingly well maintained with volunteer labour. The petrol companies pooled their supplies, the consumption of petrol increased by 35 to 40 per cent., and the volume of miscellaneous motor traffic was enormous.

There was some confusion in the Trade Union policy regarding electric supply, an attempt being made at first to discriminate between light and power, and later between different uses of power. The result was that in some localities the men came out, and in others did not: but everywhere the services were maintained, in London with the help of naval ratings. The supply of coal, both for domestic and industrial uses, was severely rationed by Government order. In the iron and steel trades production practically ceased, in the engineering trades was gravely hampered, in the textile trades not greatly affected. Postal services were reduced but maintained. The banks were unaffected: on the Stock Exchange there was little business, but practically no marking-down of prices: the exchange-value of sterling improved.

The General Council issued stringent and repeated instructions to its followers to avoid violence and disorder, and in the main these instructions were well obeyed. Besides, however, the trouble at the docks already mentioned, there was a certain amount of miscellaneous interference with volunteer labour, and fairly serious outbreaks of disorder in some parts of South London, and in Edinburgh, Glasgow and other northern towns. One or two serious attempts were made to derail trains, and a considerable number of prosecutions took place for offences of varying gravity under the Emergency Regulations promulgated by the Government by Order in Council under the Emergency Powers Act. The dangers of the situation were increased in certain localities, particularly East and South London, by the presence in the population of a semi-hooligan element of chronically unemployed. The counter-moves of the Government consisted in emphatic promises of protection to all persons at work, whether regular workers or volunteers, backed by a calling-up of the Special Constabulary and an increase in its numbers from 98,000 at the beginning of the strike to 226,000 at the end, as well as the formation of a semi-military body, numbering 11,000 in London and 7,000 in the provinces, entitled the Civil Constabulary

[1] On May 4 there were 308 buses running on the London streets; on May 12, 1272; on May 14, 1384, or nearly one-third of the pre-strike number.

Reserve. Troops were very rarely produced, and then in such overwhelming force as to minimise the danger of conflict. No life was actually lost through violence, and no shot fired. The devotion of the police, the skill and helpfulness of the volunteers, the self-restraint of the vast majority of the strikers, and the patience and good temper of the travelling public, alike won the admiration of observers.[1]

The total direct cost of the strike to the Government was estimated at £433,000. The loss to the country as a whole was roughly estimated by Mr. Runciman at £30,000,000. The number of involuntary unemployed persons on the register of the Employment Exchanges increased from 1,105,916 on May 3 to 1,576,000 on May 10.

§ 6. Owing to the putting out of action of practically the whole of the London press, the Government decided to take over the *Morning Post* offices and publish a newspaper, and between May 5 and May 13 there appeared eight numbers of the *British Gazette*. The General Council replied with the *British Worker*,—a journal equally partisan in content though less provocative in tone. These two organs kept up a running fire of propaganda and counter-propaganda, the one proclaiming the existence of a revolutionary attack on the Constitution, the other declaring the strike to be purely industrial in character. The *Gazette* claimed to have attained a circulation of 2·2 millions, the *Worker* of 1 million, before activities were suspended. *The Times* never ceased publication altogether, but continued to supply reliable news in a four-page sheet, and by the end of the strike had attained twice its average pre-strike circulation; though by this time its extinction was threatened owing to the commandeering of paper supplies for the *British Gazette*. A number of provincial journals continued to appear regularly, and by the second week most of the London dailies began to reappear in a truncated form. An extraordinary mushroom growth of bulletins and broadsheets, of varying degrees of accuracy, sprang up in the streets of London and other towns. But a large part of the population remained

[1] Several stories are told of the relations between the opposing forces which, provided the picturesque is not too rashly assumed to be the typical, seem worth repeating. At Plymouth a football match was arranged between the police and the strikers, at which the Chief Constable's wife kicked off. At Toynbee Hall an evening meeting was arranged between twenty-five striking dockers and twenty-five undergraduate special constables: in the course of the evening two dockers talked to one another tactfully for a quarter of an hour, each under the impression that the other was an undergraduate. At Dover, the strikers exhibited great solicitude that the volunteer workers should duly receive their tips—less perhaps out of benevolence than from fear lest the passengers should get into bad habits.

dependent for news on the activities of the British Broadcasting Company, which were enlisted in the service of the Government, and subjected to severe censorship.

Under such conditions the formation and dissemination of opinion were gravely hampered. There was overwhelming support throughout the country for the Government's administrative measures, and the criticism directed by the Labour Party in the House of Commons on May 5 and 6 against the Emergency Regulations was not effective. There was not the same degree of unanimity in support of the Government's insistence on the unconditional surrender of the General Council. On May 7 a meeting of leaders of the Christian Churches presided over by the Archbishop of Canterbury issued an appeal for the resumption of negotiations, suggesting that there should occur "simultaneously and concurrently" a cancellation of the general strike, a renewal of the offer of financial assistance by the Government, and a withdrawal of the coal-owners' notices. To this appeal the Government attempted to deny publicity, but it was nevertheless endorsed at numerous public meetings during the week-end. Cardinal Bourne, on behalf of the Roman Catholic Church, some of the Anglican leaders, and the elder statesmen of the two older political parties, declared themselves in a contrary sense. In the House of Commons Mr. Lloyd George stood practically alone in advocating, on May 5 and again on May 9, a negotiated peace. The non-Trade Unionist Labour members, many of whom were known to be hostile to the principle of the general strike, were urged to silence by the General Council. The Government several times reaffirmed its position, and on May 8 the Prime Minister broadcast an appeal to the nation, in which he declared that while he was longing and praying for peace he would not surrender the safety and security of the British Constitution, added the rather surprising statement that the Government was not fighting to lower the standard of life of the miners, and appealed to the public to trust him to ensure a square deal for the parties and secure even justice between man and man.

The legal aspect of the strike was dealt with by Sir John Simon in two speeches delivered in the House of Commons on May 6 and May 11. In the first he laid stress on the breach of contract committed by the vast majority of the strikers in leaving their work without due notice, and argued (*a*) that this in itself rendered the strike "illegal," and (*b*) that "every Trade Union leader who has advised and promoted this course of action is liable to damages to the uttermost farthing of his possessions."

He did not on this occasion explain how this opinion was to be reconciled with § 3 of the Trade Disputes Act of 1906, which provides that "an act done by a person in contemplation or furtherance of a trade dispute shall not be actionable on the ground only that it induces some other person to break a contract of employment." In his second speech he took the line that the general strike was not a trade dispute within the meaning of the Act, but "a movement of a perfectly different and of a wholly unconstitutional and unlawful character." In this opinion he was fortified by a judgment delivered earlier on the same day by Mr. Justice Astbury in an action brought by the National Sailors' and Firemen's Union to restrain one of their branches from calling out its members on strike. The injunction sought was granted by the judge, partly on the ground that the branch was acting in contravention of the rules of the particular Union, but partly also on the broader ground that "the so-called general strike called by the Trades Union Congress is illegal and contrary to law, and those persons inciting or taking part in it are not protected by the Trade Disputes Act of 1906. No trade dispute has been alleged or shown to exist in any of the Unions affected, except in the miners' case, and no trade dispute does or can exist between the Trades Union Congress on the one hand and the Government and the nation on the other. The orders of the Trades Union Council above referred to are therefore unlawful, and the Defendants are at law acting illegally in obeying them and can be restrained by their own Union from doing so." The import of this decision, that the acts of the strikers were not done "in furtherance of a trade dispute," was apparently to deprive them of the protection not only of the Trade Disputes Act of 1906, but of the Conspiracy and Protection of Property Act of 1875, and thus to permit the mobilisation against the general strike of the vague and almost extinct doctrines of "conspiracy to injure" and "interference with trade." The decision seems to have come as a surprise to many lawyers, who, like ordinary people, had assumed that § 5 (3) of the Trade Disputes Act, however clumsily and illogically worded, was expressly intended to cover sympathetic action.[1] But whether good or bad law, the Astbury judgment

[1] "In this Act and in the Conspiracy and Protection of Property Act, 1875, the expression 'trade dispute' means any dispute between employers and workmen, or between workmen and workmen, which is connected with the employment or non-employment or the terms of the employment, or with the conditions of labour, of any person, and the expression 'workmen' means all persons employed in industry, whether or not in the employment of the employer with whom a trade dispute arises." This seems rather like defining, say, an army as "a body of persons organised for war, whether or no such persons form part of an army."

and the Simon speeches were believed at the time to have contributed materially to the decision of the General Council to call off the strike; for one of the inferences drawn by Mr. Justice Astbury was that "Trade Union funds in this country are held in a fiduciary capacity and cannot legally be used for or depleted by paying strike pay to any member who illegally ceases to work and breaks his contract without justification in pursuance of orders which are unlawful," and the financial sinews of the strike were therefore in peril of being cut.

At the end of his second speech Sir John Simon emphasised the horror and futility of a "fight to a finish," and suggested that "if and when three conditions are satisfied,"—namely, the calling-off of the general strike, the withdrawal of the coal-owners' notices, and an undertaking by the owners and miners to negotiate on the basis of the whole Report—the Government should renew its offer of a subsidy. The actual resolution drafted in the names of Sir John and his friends was so framed as to tone down the discrepancy between this attitude and that of the Government; but it was never discussed, for in the meantime another avenue had been fruitfully explored.

§ 7. Who, if anyone, invited Sir Herbert Samuel to return from Italy, and what were his exact relations with Mr. Baldwin's entourage, is the most carefully guarded secret of the strike. But return he did, and on Saturday, May 8, he received an assurance from the Minister of Labour that, while any discussion which he might initiate would have no kind of official character, the Government would take the view that they were bound "most carefully and most sympathetically to consider the terms of any arrangement" which he might propose. By May 10 he had, after consultation with members of the General Council,[1] drafted

But common-sense seems to suggest that the effect of this definition, combined with the previous clauses of the Act, is either (*a*) to bring any sympathetic strike within the definition of a trade dispute provided that the *original* dispute was connected with employment, etc. (as the 1926 dispute in the coal-mines undoubtedly was); or, alternatively (*b*) while confining the term "trade dispute" to disputes *directly* connected with employment, etc., to extend the protection of the Acts to persons "furthering" such a dispute by sympathetic action. On the former interpretation a trade dispute *could* exist between the General Council of the Trades Union Congress and the general body of employers backed by the Government; on the latter (which is suggested by a legal correspondent of the *Economist*, May 29), it would have been irrelevant (in this particular case) that it could not. On neither interpretation would a general strike, arising as this general strike arose, be "illegal," however anti-social it might be or however dangerous to the Constitution in the opinion of particular individuals or even of the majority of the nation.

[1] To whom he did not at the time impart the Minister of Labour's assurance, but confined himself to a promise that he would strongly recommend the acceptance of his proposals by the Government when the negotiations were renewed.

a memorandum which was submitted to the Miners' Executive that night. The crucial clause of the memorandum was that "there should be no revision of the previous wage rates unless there are sufficient assurances that the measures of reorganisation proposed by the Commission will be effectively adopted," and the crucial amendment suggested by the miners and rejected by the General Council was to the effect that "there should be no revision of the previous wage rates or conditions because, if the measures for reorganisation are actually put into effect, such revisions would be unnecessary." The General Council, conscious that "a decision must be reached while the unions remained both strong and disciplined," and despairing of the co-operation of the miners in submitting "reasoned and constructive proposals," decided to go ahead. The memorandum was enlarged by the addition of certain provisions contained in the document alluded to in the last paragraph of § 4, submitted again to the miners on the night of May 11 with the intimation that the General Council had decided to accept it and to call off the general strike, and again rejected by the miners. One more unsuccessful attempt was made on the following morning to secure the adhesion of the miners, and a deputation of the Council then waited on the Prime Minister at 12.20 p.m. and announced that measures would be taken to terminate the strike forthwith. In the conversation which followed Mr. Bevin made a tentative attempt, which met with no success, to elicit from the Prime Minister an assurance that the coal-owners' notices would also be withdrawn forthwith. Mr. Bevin indeed, with some other members of the General Council and large sections of the Labour world, seems to have been and to have remained for some time under a genuine misapprehension as to the existence of some obligation on the Prime Minister, other than those derived from his own conscience and public opinion, to accept the terms of the Samuel Memorandum.

On the same afternoon the Miners' Executive published their repudiation of the Samuel Memorandum—a repudiation repeated verbally to the Prime Minister when he sent for them the following morning. The Prime Minister thereupon promptly substituted for the Memorandum proposals of his own, which, while going into greater detail than the Memorandum on the measures of reorganisation proposed for action by the Government, markedly omitted all mention of the State purchase of mineral royalties, and differed from the Memorandum in demanding an immediate wage reduction from the men. On the former point it is evident that the Government was already

beginning to draw back; but on the latter it appeared later that the Prime Minister in conversation had offered the miners' leaders the alternative of an immediate return at the old rates provided that the total of £3,000,000 set apart for subsidy were not exceeded. The wage reduction contemplated was explained in conversation to be of the order of 10 per cent. The scheme resembled the Samuel Memorandum in providing for arbitration, in the event of disagreement, by the neutral chairman of the proposed National Board.

These proposals were finally rejected by both parties in the following week. The miners on May 20 announced their objection to the wage-cut, and to the scope allowed in the arbitration proposal for the fixing of varying district minima (a point on which the Samuel Commission had preserved silence). The owners on May 21 proclaimed their hostility to the arbitration proposal and to the whole project of legislative interference with the industry. The Prime Minister, in a couple of sharply-worded replies, announced that his offer would only remain open till the end of the month, though it was afterwards explained that the Government did not feel itself precluded from giving further financial assistance at a later date at its own discretion if a settlement were to be reached. Thus was ushered in a prolonged period of deadlock between the parties and inactivity on the part of the Government.

§ 8. The news of the calling-off of the general strike was received with bewilderment by the strikers, mingled with anger or relief according to the complexion of their temperaments and views. By the bulk of the public it was received with a joy which exhibited itself in an outburst of national self-approval, in affectionate admiration of the Prime Minister, and in a fairly general willingness to respond to appeals for peace and good-will. A more chastened mood prevailed on the following days, when the enormous difficulties connected with the re-starting of work became evident. Returning strikers found themselves faced locally with refusals of unconditional reinstatement and with attempts to vary the conditions of employment, and remained out pending instructions from their national organisations. Rumours were rife of a wholesale attack on wages. The Prime Minister on May 13 declared that he would countenance no such attacks, and appealed to the employing interests not to take advantage of their position. On the railways the situation was complicated by previous over-staffing and by a curtailment of traffic owing to the continuing coal stoppage, in the docks and

in road transport by the rival claims of the temporary labour engaged during the strike.

A national railway agreement was signed on the afternoon of May 14, embodying provisions for the reinstatement of strikers as soon as work could be found for them, an admission by the Unions that they had committed a "wrongful act" against the companies, and a pledge on their behalf not again to strike without previous negotiations. On this basis work was resumed during the next few days with varying difficulty in different localities; but the process of reinstatement made slower progress than the men had hoped, and on May 21 it was arranged by mutual agreement to suspend the guaranteed week, so as to enable the spreading of the available work. Six weeks later complaints were still rife that the reinstatement arrangements were not being carried out by subordinate officials in the generous spirit of the pronouncements made by the General Managers of the companies.

Agreements were signed on May 14 for resumption of work on the London Underground, tubes and trams, and on May 15 for resumption of work at the London docks. In the other ports progress was slower, and work was not resumed at Glasgow till the 18th, nor at Bristol till the 20th. In the printing trade also there was some delay in arriving at a final settlement. In all these cases the agreements signed resembled in general character that reached for the railways. The Government Departments took a somewhat sterner view of the terms of reinstatement that could be offered to the 3,600 State employees who had remained throughout on strike.

D. H. Robertson.

AN INQUIRY INTO BRITISH METHODS OF CROP ESTIMATING

To those familiar with the scale of the machinery utilised to assess crop yields in the United States, and the financial importance attaching to the results thereby attained, any description of the methods pursued in this country must at first glance appear superfluous. Commercially, not a bushel of home-produced grain is exported; a representative witness of the grain trade has assured the Food Council that, "if every arable acre in this country produced wheat, it would have no effect upon the world price"; British farmers display no interest in what is to them merely an academic subject. Yet to the rural economist and the plant-breeder it is of very real importance, and to the statistician its treatment presents some absorbing questions. Further, international comparisons of output and yield are being daily effected by both skilled and unskilled persons, whose deductions are alike founded on data often incomparable, frequently incomplete, and always subject to numerous reservations, while similar investigations confined to areas within these islands are faced by unsuspected difficulties.

So far as the writer is aware, no one has commented upon the principles of crop measurement adopted in this country, nor has any investigator closely analysed the pertinent statistics; all have apparently been content to accept without question what is provided in official publications. The general literature of the subject has, apart from certain works dealing with conditions in the United States, been confined to inquiries into such special issues as the alleged existence of crop cycles, the influence of the weather upon cereal yields, and the comparative productivity of varying soils and localities. Most writers seem to accept as axiomatic the belief that, if yields have not declined, all progress has ceased. Thus, Sir T. Middleton, in his monograph *The Recent Development of German Agriculture* (Cd. 8305, 1916, p. 27), says, "the yield per acre of the crops in England has been practically stationary," adding, significantly, in the case of wheat, "as inferior land is the first to be diverted to other crops, a substantial increase in yield might have been expected." The *Report* of the Tribunal of Investigation (p. 27) contains the

following observation: "reference to statistical records . . . indicate that in the cereal crops the average yield in Great Britain has increased much less than the heavy contraction in the area might have led one to expect." One great authority endorses these views with certain reservations, for Sir John Russell, in his chapter on "Increased Crop Production" (*Life and its Maintenance*, p. 108), holds that, while "we do no better in the good years than our forefathers did," and, in this respect, "have got into an impasse," yet is inclined to think that an improvement has been registered by the elimination of really bad years. Lastly, Sir H. Rew utters the following warning against implicit acceptance of pessimistic views: "There is a very prevalent belief that the output of British agriculture had been for some years prior to the war steadily declining, and dogmatic assertions to that effect are not uncommon in works claiming to be authoritative" (*Journal Royal Stat. Soc.*, January 1922). It is the purpose of this article to illustrate the last writer's statement, and, by a close analysis of past records, together with appeal to external evidence, to suggest that matters are in reality better than the official data would permit one to suppose. The statistics in question are frequently quoted in such a manner as to make them appear worse than is the case; thus, the selection of England as the geographical unit, of barley, oats or turnips as typical crops, and of pre-war and post-war periods as the chronological bases, results in a most biassed picture of the situation, as reference to the table on page 400 will indicate.

The ultimate weight of yield of any given crop is dependent upon an infinity of factors, among which are the following: soil; latitude; altitude; aspect; the amount, type, time and duration of precipitation; accumulated hours of sunshine; range of temperature; size of the producing unit; variety of seed; date of sowing; cultivational methods; human skill and management. To these must be added reference to the economic condition of the industry as a whole and of its component parts, and it is also necessary to inquire if the area under the crop is increasing, stationary or declining. By the above means Nature and man combine in the work of crop raising, and it would appear a comparatively simple undertaking for the latter accurately to estimate the weight, or volume, of their joint achievement. This may be the case in a strictly limited area, but when it is desired to ascertain the "average" return over a large tract of territory, to compare the yield at one period with that obtained at an earlier date, or to form an opinion as to the probable results

attending an extension of arable husbandry, the undertaking is a most complicated one, and not made easier by man's catholic selection of his measures. In these particular islands conditions are exceptionally difficult, for there exist large numbers of non-homogeneous areas, while in the majority of countries—especially those situated in the New World—greater uniformity of soil is assured. Here, then, the problem is one of estimating total out-turn by merging widely varying units of production, where the annual fluctuations are small, rather than of calculating gross yields over large homogeneous areas subject to more potent climatic influences. For example, yields in the United Kingdom, even of cereals, range in different localities from an excess of 80 per cent. above the over-all average down to 50 per cent. below, while that figure itself is, officially, subject to fluctuations of at most some 10 per cent. in either direction.

Historically, apart from certain well-known, and isolated, instances of estimates made by private individuals (*e.g.* those of Caird in the early 'fifties of the last century), no *series* of figures purporting to represent British crop yields were available prior to 1868. In that year Lawes and Gilbert together issued the first of a sequence of three inquiries entitled "Home Produce, Imports and Consumption of Wheat" (*Journal of the Royal Agricultural Society of England*, Vol. VI. Pt. 2, p. 359, and again in 1880 and in 1887; see also *Stat. Soc. Journal*). Dissatisfied with the statements appearing in some of "our best-conducted agricultural papers," which were generally premature, and invariably referred to yields in such vague terms as "average," "over average," or "under average," they broke new ground by proceeding upon more exact lines. Their method was to correlate data relating to actual wheat yields from certain of the already famous Rothamsted plots with those obtained in other parts of the country; the figures of gross yield thus secured were checked by reference to the quantities of grain imported, fortified by independent estimates of consumption. It is unnecessary here to describe in detail the elaborate precautions taken to satisfy requirements in regard to such factors as acreage, soil conditions, natural weight of grain, and the number and types of plots judged fit for inclusion; it will suffice to say that the figures prepared thus by Lawes and Gilbert have universally been accepted as authoritative. Their investigations were, of course, confined to the one cereal, commenced in the year 1852, and were carried two years past the time (1884) when official records started; further, they embraced the component parts of the

United Kingdom. Briefly, the story of these thirty-three years is revealed as follows. The average yield for the United Kingdom worked out at 27 bushels per acre, ranging from $15\frac{1}{2}$ bushels in the disastrous year 1879, up to the exceptionally high level of $38\frac{3}{4}$ bushels in 1863. The authors pointed out that this figure of 27 bushels was unduly low, being occasioned by the run of bad seasons in the second half of the series, represented by Brückner's "cold and wet" period of 1871–85. They gave it as their considered opinion that in 1887 the normal average was $28\frac{1}{4}$ bushels. In the light of what is to follow, separate figures relating to each part of the country possess great value, and we find that when the United Kingdom average was $28\frac{1}{4}$ (1852–67), the Scotch figure was $27\frac{3}{4}$, the Irish $23\frac{7}{8}$, and that of England and Wales $28\frac{3}{4}$; this was a time of high farming, and these yields probably represented the maximum achievement possible pending further scientific assistance. Lawes' and Gilbert's estimates afford a reliable starting-point for an uninterrupted survey of seventy-three years of wheat production—a period of time unapproached in any other country. Attention must be drawn in passing to two features observable in the early years: first, the relative position occupied by each separate part of the United Kingdom, and, secondly, the extent of the secular deviations from the normal, which the diagram on p. 403 well illustrates.

Statistics relating to the acreage of all crops and the numbers of live-stock (designated as *Part I, Agricultural Statistics*) date from the year 1866, more than twenty years of opposition from farmers and apathy on the part of Parliament having been experienced before their collection made possible even a partial economic survey of the industry. It is remarkable that, although those persons who had most strongly advocated such measures based their arguments upon the need for ascertaining the yields of crops, yet at the time in question it was not deemed feasible to collect information relating to out-turn. Eighteen years later, in 1884, this important step was, however, taken, and what is now known as *Part II, Agricultural Statistics* was instituted. This publication contains the estimated yields per acre of practically all field crops, and, in conjunction with *Part I* and the subsequently collected data of an economic character, provides an admirable review of the state of British agriculture. It should be observed that, as the jurisdiction of the Ministry (formerly the Board) of Agriculture is confined to England and Wales, the separate Boards in Scotland, the Irish Free State and, latterly, Northern Ireland are responsible for analogous surveys in their respective areas.

It frequently surprises inquirers to learn that occupiers themselves do not prepare estimates of yield, although they are solely responsible for completing the schedules to *Part I*, *Agricultural Statistics*; the latter, however, comprise merely statements of fact, and it is officially held that producers could not be trusted to give accurate estimates of out-turn. If the early nineteenth-century arguments against such a procedure are no longer valid—viz. that evidence of good harvests would be translated into higher rents, and low prospective yields might precipitate bankruptcies—others are adduced. Principal among these are the following: (*a*) That an additional form would have to be completed by, often, unskilled pens; (*b*) that a delay would, therefore, occur; (*c*) that both differentiation between actual weights and bare estimates and combination of divergent units of measurement would be impracticable; (*d*) that the agriculturist is by nature pessimistic, and would understate output. The last appears to constitute the strongest claim, as anyone can endorse who will compare prognostications made by farmers prior to harvest with their subsequent gains from the threshing-machine. They, however, do not possess a monopoly in this trait, which certainly attaches to the local officials. Thus it came about that from 1884 until 1918 two hundred and twenty Enumerators (land-agents, valuers, surveyors), selected by the provincial Customs and Excise officers, were appointed to this brief part-time duty; in 1919 their numbers were increased to three hundred and thirty. It is claimed that, as a separate estimate is prepared of the yield of crops in each of the 13,000 parishes, a high degree of statistical accuracy is attained, but each Crop Reporter, to give him his official designation, is even now responsible for an enormous territory, amounting to an average of 80,000 acres of farmed land, embracing over 1,200 holdings scattered in forty parishes; these figures were, of course, for nine-tenths of the period under review, 50 per cent. larger. The parish is their unit in the first instance, and their subsequent work involves weighting these parish returns conformably with the cropped areas recorded in the schedules previously obtained from occupiers, and then amalgamating the results. The Ministry claims that, "assuming any error in these individual parish estimates is just as likely to be in one direction as the other, such errors of judgment as may occur tend to compensate each other, and the final result is as exact as is possible in a measurement of this magnitude" (*Part II*, *Agricultural Statistics*, 1920, p. 57). On the validity of this assumption light will be thrown

later, but it should be explained that Crop Reporters are not expected to rely solely upon their own observations, but are instructed to obtain records of yield from "leading farmers and threshing-machine owners," and "to note the prevalent size of stacks and clamps." To what extent information so obtained affects their statements is problematical. The Reporters' separate areas are in turn combined by the head-quarters staff in order to obtain county figures, and, finally, the latter are thrown together into statements applicable to the component parts of the (former) United Kingdom. Thus the results are representative, not of the arithmetical average of the varying rates of yield occurring from Yarmouth to Barmouth and from Teignmouth to Tynemouth, but, in theory, give expression to the relative importance of all the productive units concerned. This weighting can, in practice, be proved to affect little the results for England as a whole, especially in recent years, but it is, of course, an essential process in the construction of any figure expressive of results in the United Kingdom or other composite area.

Considerable space has been devoted to a description of the origin and methods of British crop-reporting, but this digression is necessary if it is desired to compare the results obtained with those derived from other sources of information. What, briefly, do these official statistics suggest have, during their lifetime, been the variations in the rates of yield of the more important crops? As the diagrams on p. 403 show, wheat improved in the United Kingdom from 29 bushels in the decade 1885–94 to just over 32 bushels at the outbreak of war, barley from 33·3 bushels to 34·3 bushels, and oats from 39 bushels to 42 bushels. The second decade (1895–1904) was climatically favourable, and the third was not abnormal. The next ten years witnessed a decline of about $\frac{3}{4}$ of a bushel in wheat, of $2\frac{1}{4}$ bushels in barley and of $1\frac{1}{2}$ in oats, in part no doubt attributable to war conditions (for the local effects on productivity of the ploughing-up campaign see the writer's *Foundations of Agricultural Economics*, pp. 160–9). If the constituent parts of the whole country are separately analysed, the discovery is made that England, except in the case of wheat and beans, played little part in the upward movement, but the credit must in the main go to Scotland and to Ireland, where also the conditions which supervened after 1914 failed seriously to affect the situation.

The following are comparative figures for each of the six crops in the three decades and latest available periods.

		Wheat.	Barley.	Oats.	Beans.	Potatoes.	Turnips.	Mangolds.
England :	(a)	29·3	33·1	40·6	25·8	5·9	12·4	17·5
	(b)	30·5	32·6	40·7	27·4	5·8	11·9	18·4
	(c)	32·1	33·3	40·8	30·3	6·2	13·0	19·5
	(d)	31·1	30·6	39·2	26·9	6·2	12·5	19·1
Wales :	(a)	23·3	28·0	32·6	26·7	5·6	14·1	16·3
	(b)	25·0	30·2	33·2	24·7	5·4	14·8	16·2
	(c)	27·6	31·1	35·3	27·3	5·3	15·2	18·0
	(e, g)	27·5	29·5	33·7	27·3	5·4	14·0	17·6
Scotland :	(a)	35·3	35·3	35·6	30·5	5·6	14·9	16·2
	(b)	37·7	35·8	36·4	33·1	5·9	15·1	17·2
	(c)	40·6	36·1	38·0	36·7	6·5	16·5	18·9
	(e, g)	39·3	35·4	39·3	36·7	6·6	16·5	19·0
Ireland :	(a)	29·1	36·4	41·0	34·3	3·5	13·1	14·0
	(b)	33·0	39·9	44·7	37·7	4·1	15·2	16·5
	(c)	36·9	43·0	49·5	43·3	5·2	17·2	19·4
	(f)	36·0	41·8	49·6	42·8	5·3	16·9	19·6

(a) 1885–94, (b) 1895–1904, (c) 1905–14, (d) 1915–24, (e) 1914–23, (f) 1911–20, (g) 1912–21.

If we accept as accurate the statements supplied by the Scottish and Irish Departments—and there is no reason why, merely because they differ from those relating to England, we should treat the crop-reporting systems as suspect or their personnel as inefficient—the question at once arises as to why English yields, which in the case of most crops must, from their preponderating acreage, sway the gross returns, have retarded the United Kingdom figures. Except in the case of Wales, these separate countries did not occupy a low position in the first period (whatever may have been the circumstances when Lawes and Gilbert carried out their investigation twenty years earlier), so it cannot be maintained that they had leeway to overtake. The yield of three out of four cereals and of roots was, and still is, higher in Scotland than in England; the same is true, to a more marked degree of Ireland, save in the case of potatoes. This statement generally surprises English hearers. In England the area under wheat declined by some 50 per cent. during the first two periods, that of barley by about 20 per cent., while oats were a stationary crop; elsewhere movements were unimportant, as the principal losses had occurred, *e.g.* in Irish wheat-land, before 1885. Now, as far back as 1890 the preface to *Part II, Agricultural Statistics* contained the following prophecy: "It may be indicated that there is good reason to believe that, especially in districts where a continual shrinkage of the area devoted to one crop takes place, as has happened in the case of wheat-

growing, the reduction of the crop upon inferior, and its limitation to the more productive classes of soil, must assuredly tend to raise the standard of normal yield per acre." If we endorse this premise, then it is obvious that anticipations were not borne out, for the only real increase, neglecting recovery from climatic influences, took place after stabilisation of the English wheat area had been achieved. In justice to the reputation of rural economists, however, it should be pointed out that, in the case of this particular cereal, a contraction of area almost invariably implies also the loss of heavy clay soils, which, *ceteris paribus*, are productive of the weightiest crops. On balance these two opposing factors were probably operative thus: over England as a whole the effect of shrinkage was beneficial to yield, but in the case of individual counties—*e.g.* Essex and the East Midlands, where heavy land predominates—the opposite held true, and local yields were reduced; in other words, the total light land area concerned exceeded that of the corresponding heavy soils. Reverting to Scotland and Ireland, it must be observed that economic conditions were not dissimilar from those pertaining in England, the weather was, as always, over a series of years, normally effective, and yet the stubborn ten-year averages rose markedly and uniformly from already high levels. It will perhaps be suggested that in Scotland advanced methods of farming (whether represented by better application of labour or capital) were being progressively adopted, but north of the Border this was already the case by the commencement of the basic period, and in the mid 'eighties Irish farmers were famous for their barley and oats, complete produce statistics of which had annually been collected from as far back as the year 1847 on a scale unapproached elsewhere in the British Isles. In effect, the Scotch and Irish Departments of Agriculture had recognised an increase of some 25 per cent. on cereal yields in excess of the figures given by Lawes and Gilbert a generation earlier. If no explanation based on agricultural practice or natural phenomena is forthcoming, are we not justified in asking why England failed to register commensurate improvement, and, if satisfactory reasons are lacking, may we not suggest that perhaps the figures of English yields are themselves retrograde? Additional force is lent to this suggestion if the records of individual years are investigated, for, as previously noted, according to Lawes and Gilbert, as far back as 1863 wheat actually averaged 38¾ bushels over the whole United Kingdom, and 35¼ bushels a year later, while on only two occasions since 1884 has a level of 34 bushels been exceeded, despite the reduction

in the area of light land, despite advances of varying magnitude made in every part of the Kingdom, and despite the work of the plant-breeder. It seems incredible that 35·4 bushels in 1921 should represent the modern peak of achievement if sixty years

Table I

United Kingdom wheat yields, 1852 to 1923 (derived from Lawes' and Gilbert's estimates up to 1884, and thenceforward from official statistics) together with the ten-year (moving) average and annual deviations from the latter.

	Actual yield. (Bushels.)	Moving average. (Bushels.)	Deviation from average. (Bushels.)		Actual yield. (Bushels.)	Moving average. (Bushels.)	Deviation from average. (Bushels.)
1852	22·9			1888	28·0	29·2	−1·2
1853	20·9			1889	29·9	29·3	+0·6
1854	34·7			1890	30·7	28·8	+1·9
1855	27·4			1891	31·3	29·5	+1·8
1856	27·0	27·1	−0·1	1892	26·5	29·2	−2·7
1857	33·1	27·7	+5·4	1893	26·1	29·9	−3·8
1858	31·5	29·5	+2·0	1894	30·7	30·2	+0·5
1859	26·2	29·6	−3·4	1895	26·3	30·0	−3·7
1860	22·1	29·9	−7·8	1896	33·6	29·9	+3·7
1861	25·2	29·7	−4·5	1897	29·1	30·6	−1·5
1862	29·2	28·5	+0·7	1898	34·7	31·0	+3·7
1863	38·7	28·7	+10·0	1899	32·7	30·7	+2·0
1864	35·2	28·8	+6·4	1900	28·6	31·4	−2·8
1865	30·6	29·6	+1·0	1901	30·9	31·3	−0·4
1866	25·1	29·5	−4·4	1902	32·9	31·9	+1·0
1867	21·0	29·0	−8·0	1903	30·1	31·6	−1·5
1868	34·0	27·3	+6·7	1904	27·0	31·7	−4·7
1869	27·0	26·7	+0·3	1905	32·9	31·9	+1·0
1870	30·0	26·0	+4·0	1906	33·7	32·2	+1·5
1871	24·0	26·0	−2·0	1907	34·0	31·7	+2·3
1872	24·0	26·5	−2·5	1908	32·4	31·9	+0·5
1873	22·5	26·1	−3·6	1909	33·8	32·3	+1·5
1874	29·2	25·0	+4·2	1910	30·5	32·2	−1·7
1875	22·9	24·4	−1·5	1911	33·0	31·7	+1·3
1876	25·0	24·4	+0·6	1912	29·1	31·4	−2·3
1877	26·5	24·6	+1·9	1913	31·7	31·6	+0·1
1878	30·0	25·1	+4·9	1914	32·8	31·1	+1·7
1879	15·5	25·2	−9·7	1915	31·7	31·0	+0·7
1880	24·5	26·0	−1·5	1916	29·1	31·2	−2·1
1881	24·0	26·2	−2·2	1917	30·6	31·4	−0·8
1882	25·6	26·7	−1·1	1918	33·3	31·5	+1·8
1883	28·0	26·5	+1·5	1919	29·2		
1884	29·4	28·0	+1·4	1920	28·7		
1885	31·2	28·6	+2·6	1921	35·4		
1886	26·9	29·3	−2·4	1922	31·5		
1887	32·0	29·4	+2·6	1923	31·8		

ago an average United Kingdom yield of 28¼ bushels was susceptible of increase to nearly 39 bushels. On this basis the present-day level of 31·4 bushels might reasonably be expected to provide examples of over 43 bushels—where are they? In so far as actual fluctuations are concerned, the following diagram may again

TEN YEAR (MOVING) AVERAGE AND ACTUAL YIELDS OF WHEAT IN THE UNITED KINGDOM. 1852-1923.

[Based upon the estimates of Lawes and Gilbert from 1852 to 1884, and thenceforward upon official statistics.]

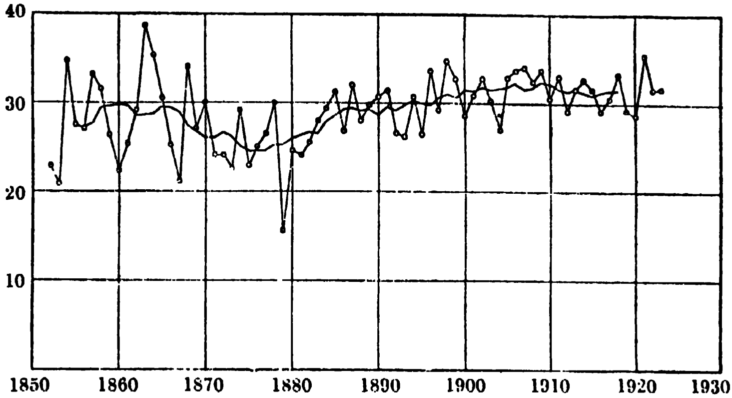

FIG. 1.

TEN YEAR AVERAGE AND ACTUAL YIELDS OF OATS (ABOVE) AND OF BARLEY (BELOW) IN THE UNITED KINGDOM 1884-1923.

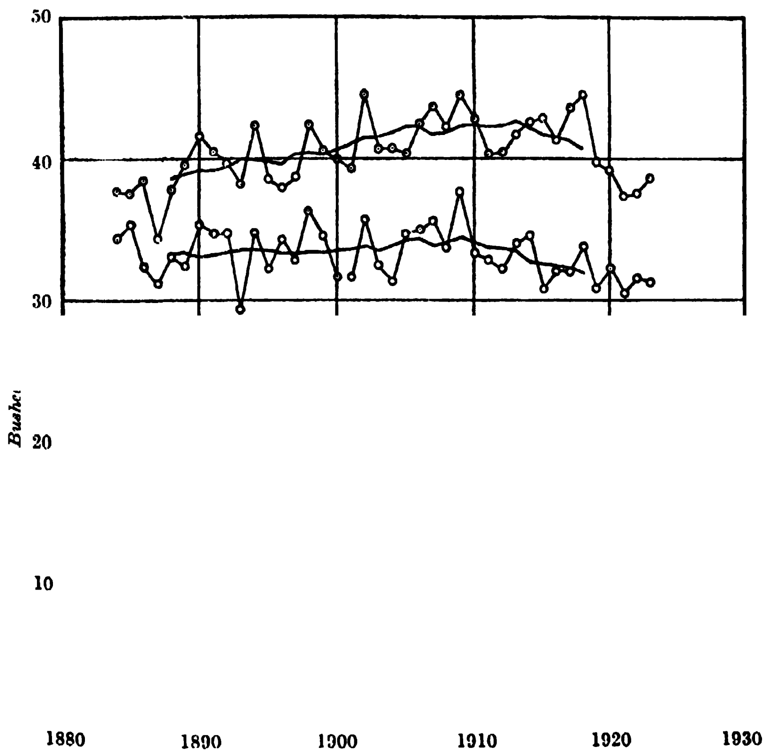

FIG. 2.

be referred to, for it well illustrates this feature. In the two decades 1886–95 and 1896–1905 the mean deviations from the moving average in annual United Kingdom wheat yields were

TABLE II

Yields of barley and oats in the United Kingdom from 1884 to 1923, together with the moving (ten-year) average and annual deviations from the latter.

	Barley.			Oats.		
	Actual yield. (Bushels.)	Moving average. (Bushels.)	Deviation. (Bushels.)	Actual yield. (Bushels.)	Moving average (Bushels.)	Deviation. (Bushels.)
1884	34·2			37·8		
1885	35·2			37·6		
1886	32·3			38·5		
1887	31·1			34·2		
1888	33·0	33·2	−0·2	37·9	38·6	−0·7
1889	32·4	33·3	−0·9	39·7	39·0	+0·7
1890	35·2	33·0	+2·2	41·5	39·1	+2·4
1891	34·7	33·1	+1·6	40·5	39·1	+1·4
1892	34·8	33·3	+1·5	39·8	39·5	+0·3
1893	29·3	33·6	−4·3	38·1	40·0	−1·9
1894	34·8	33·5	+1·3	42·3	40·0	+2·3
1895	32·1	33·5	−1·4	38·7	39·9	−1·2
1896	34·2	33·2	+1·0	38·0	39·8	−1·8
1897	32·9	33·3	−0·4	38·8	40·3	−1·5
1898	36·2	33·6	+2·6	42·3	40·5	+1·8
1899	34·6	33·3	+1·3	40·6	40·4	+0·2
1900	31·7	33·5	−1·8	40·0	40·5	−0·5
1901	31·7	33·6	−1·9	39·3	41·0	−1·7
1902	35·8	33·9	+1·9	44·5	41·5	+3·0
1903	32·4	33·6	−1·2	40·8	41·5	−0·7
1904	31·2	33·9	−2·7	40·8	41·9	−1·1
1905	34·8	34·1	+0·7	40·4	42·2	−1·8
1906	35·0	34·2	+0·8	42·4	42·2	+0·2
1907	35·6	33·8	+1·8	43·8	41·8	+2·0
1908	33·8	34·0	−0·2	42·2	41·9	+0·3
1909	37·7	34·4	+3·3	44·5	42·2	+2·3
1910	33·2	34·0	−0·8	42·9	42·4	+0·5
1911	32·9	33·7	−0·8	40·2	42·2	−2·0
1912	32·1	33·6	−1·5	40·4	42·2	−1·8
1913	34·0	33·4	+0·6	41·7	42·6	−0·9
1914	34·5	32·7	+1·8	42·6	42·1	+0·5
1915	30·8	32·5	−1·7	42·9	41·7	+1·2
1916	32·0	32·3	−0·3	41·2	41·4	−0·2
1917	32·0	32·2	−0·2	43·7	41·1	+2·6
1918	33·8	31·9	+1·9	44·5	40·8	+3·7
1919	30·9			39·9		
1920	32·1			39·1		
1921	30·4			37·3		
1922	31·5			37·5		
1923	31·1			38·7		

respectively 2·12 and 2·23 bushels, equivalent in each case to 7·1 per cent.; in the next period the figure was only 1·36 bushels or 4·3 per cent. If the Rothamsted records be consulted it is apparent that a remarkable change had taken place, for in 1856–65

the variation amounted to 4·18 bushels (14 per cent.), in 1866–75 it was 3·72 bushels (14 per cent.), and in 1876–85 2·79 bushels (10·7 per cent.). Bad seasons cannot account for the earlier freedom of movement, for if it ranged down to *minus* 9·7 bushels it also attained to *plus* 10 bushels. The advent of the Board, which is plainly reflected in the diagram, resulted in a reduction in these fluctuations by more than 50 per cent. in a period of less than thirty years. The maximum departure from the ten-year average since 1886 has, in the case of wheat, been *plus* 3·7 bushels and *minus* 4·7 bushels; only once between 1907 and 1918 has a range of 2 bushels been exceeded. These figures afford clear evidence of an incredibly uniform rate of production. If bad years have been eliminated, so have the good. For barley and oats the range is, of course, now, and always has been, more restricted—a figure under 2 bushels representing in both cases the mean divergence in all three decades, the percentages being little over 3, and the maximum range from − 4·3 to + 3·3 for barley and only − 2·0 and + 3·7 for oats (see table above).

It is opportune to ask what is the present-day range of deviation from the normal in other countries where production of wheat is on a level similar to that in these islands. Inquiry on such lines gives the following results, which refer to a series of ten years from 1910 to 1919 inclusive: statistics of barley and oats have also been added, together with comparable figures for each separate part of this country.

Country.	Wheat.		Barley.		Oats.	
	Mean deviation.	Maximum range.	Mean deviation.	Maximum range.	Mean deviation.	Maximum range.
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
Denmark	13·4	+ 21·8 − 29·9	7·3	+ 15·9 − 25·0	8·1	+ 10·4 − 20·7
Germany	10·4	+ 22·3 − 21·8	15·1	+ 24·1 − 28·6	18·2	+ 28·8 − 38·8
Holland	7·3	+ 18·6 − 14·5	9·8	+ 17·0 − 23·3	9·0	+ 14·5 − 23·7
New Zealand	13·0	+ 20·2 − 23·3	13·5	+ 20·0 − 22·7	11·1	+ 12·0 − 19·6
Sweden	10·6	+ 13·9 − 26·7	9·2	+ 20·0 − 19·5	15·3	+ 23·6 − 28·4
Switzerland	11·8	+ 43·6 − 18·8	5·3	+ 11·8 − 13·4	8·0	+ 30·0 − 19·6
United Kingdom	4·5	+ 7·1 − 6·4	3·2	+ 5·5 − 5·8	3·1	+ 5·7 − 5·2
England	4·7	+ 7·7 − 6·9	3·7	+ 5·1 − 7·7	4·2	+ 6·9 − 9·2
Scotland	4·5	+ 7·6 − 9·1	4·5	+ 8·3 − 13·1	3·3	+ 4·6 − 6·2
Ireland	2·4	+ 4·2 − 4·9	3·3	+ 6·4 − 7·6	3·5	+ 4·9 − 7·7

It will be agreed that the first six countries exhibit an elasticity in their rates of yield singularly at variance with those pertaining here, but neither natural conditions nor agricultural practices are

widely different, while the figures themselves have been independently arrived at by the Agricultural Departments concerned. Two features must be noticed—in the case of New Zealand variations in wheat yields are admittedly related to the extent of the cropped area (see D. B. Copland, *Wheat Production in New Zealand*, and New Zealand *Official Year Book*, 1925, p. 411), and in Germany, although war privations reduced yields in certain years, such deficits were nevertheless equalled by corresponding excesses. Apart from these countries, there appear to have been no special influences at work, and, as an extension of this investigation to earlier periods or its prolongation chronologically invariably leads to the emergence of similar results, it seems legitimate to state that the normal deviation in yields of countries with small, or moderate, areas under wheat, and with a production of from 28 to 40 bushels per acre, is 10 per cent. to 12 per cent., with extremes of *plus* and *minus* 20 per cent. to 25 per cent., with corresponding figures for barley and oats. Why, then, is this country (both as a whole and in part) confined to a steadily contracting range, which is equal to less than half that found elsewhere?

It is now necessary to inquire if Crop Reporters under-valued yields *ab initio*, or whether they failed to record advances subsequently made in English crop husbandry. As a result of close examination of the later work of Lawes and Gilbert, there is considerable evidence for the latter contention. Thus, for 1884 these two writers estimated the United Kingdom yield as 29·4 bushels of wheat, the Board of Agriculture placed it at 29·9; in 1885 the Rothamsted figure was 30¼ bushels and the official estimate 31·24 bushels. These two years alone provide examples of double estimates, and they exhibit no serious divergence, but if there was no marked break at the junction, the previous analysis shows a conservative tendency to have been at once operative. Fresh light can be thrown on this matter from an unexpected quarter, for from 1885 up to the year 1894 British Crop Reporters had been instructed to relate their annual statements to what was known as the " Estimated Ordinary Average " of their district—this figure having been originally evolved by themselves. From 1895 onwards the " ten-year average " of their own previous figures was substituted, and it is interesting to compare side by side these two standards. Now, the ten-year average was, for every crop except wheat, lower than the estimated figure, the difference in the case of cereals amounting to over a bushel.

	Wheat.	Barley.	Oats.	Beans.	Peas.	Potatoes.	Turnips.	Mangolds.
"Estimated ordinary average."	28·80	34·02	39·04	30·36	28·46	6·11	15·27	19·81
Ten-year average (1885–94).	29·32	33·02	38·21	26·04	25·20			

In the case of individual crops and counties these differences were often marked; thus the standard for oats was reduced from 65·11 bushels to 58·30 in Cambridgeshire and proportionately throughout East Anglia. So the Reporters, who had in theory related their estimates to a figure of their own choice, were shown in practice to have remained upon a lower plane, for the weather of the period 1885–94 had been favourable—conservatism was already at work. That the officials were acting entirely independently, and untrammelled by regulations, is shown by the fact that individuals among them recorded advances, but weight of numbers told against these persons, and " errors of judgment " did not " tend to compensate one another."

Next, if investigations are pursued either by means of maps shaded according to the weights of yields secured in each decade, as has been done by the writer elsewhere (Appendix, *Foundations of Agricultural Economics*), or by other diagrammatic methods, certain features at once obtrude themselves, for individual counties exhibit wide divergences from the common level of their circumscribing neighbours. These divergences can be proved to be unrelated to any such causatives as geological formation or soil conditions, and they are particularly marked in certain small counties where one, or at most two, Crop Reporters have been in charge. These persons have, in the majority of instances, acted for many years, and there is little doubt that their views have become stereotyped and their estimates refuse recognition to modern developments. The obvious remedy—a constant changing of their spheres of activity—is rendered impossible by reason of the cost entailed, for whole-time officials would have to be appointed. The same difficulty would be met with if it were proposed to reduce their unwieldy areas. The following are typical of the anomalies revealed by an inspection of past records, confined purposely to pre-war years in order to exclude any question of State interference. In Nottinghamshire the yield of wheat in 1885–94 was 28·72 bushels, in 1895–1904 27·97 bushels, and in 1905–14 30·67 bushels; as the acreage declined steadily

during the three decades, according to official expectations, yields should have improved throughout the period. The yield of this crop also declined during the 'nineties in Cambridgeshire and Leicestershire, rising everywhere else, and in the subsequent period it fell only in Cumberland, Cornwall and Huntingdon—what possible affinity is there between these areas? If similar, and adjacent, counties are compared, and the position of other cereals inquired into, no satisfactory explanation is forthcoming. For example, in Northamptonshire wheat yields were 31·16, 31·65 and 34·09 on an area which moved uniformly downwards, and in Huntingdonshire corresponding figures were 29·21, 30·11 and 28·60 on an almost stationary acreage—in both counties heavy land predominates. The yield of oats declined heavily (43·98, 41·87, 36·13) on a slightly rising area in Huntingdonshire, while simultaneously it fell in Northamptonshire from 38·68 to 36·77, and then rose to 40·05; again, in the former county, barley yielded 30·30 bushels in the first period on 21,000 acres, 29·20 on 19,000 acres in the second, and 28·85 in the third on a similar acreage, at a time when the Northamptonshire figures were 33·38, 30·99 and 35·12, and those of Rutland 32·16, 29·03 and 35·04. A map of the south-west of England, coloured according to crop yields, displays unexpected variations in the productivity of Devonshire and Cornwall, the former county steadily improving in all branches, the latter at first falling and then rising. Is it really possible that oats only yielded 38 bushels in Merioneth for the twenty years 1895–1914 when they had averaged 44·96 from 1885 to 1894? If Anglesey produced wheat at the rate of 38·11 bushels to the acre in 1895–1904, as compared with only 26·84 for the ten previous years, what caused a decline to 34·02 bushels, and, if this county at the same time had the highest yield (40·46 bushels) of barley in England and Wales, why was there a subsequent loss of 6½ bushels? Neither light nor heavy land areas in the cereal regions of East Anglia were exempt from these inconsistencies. Essex, a typical wheat-producing county, raised some 145,000 acres of that crop in 1885–94, averaging 30·71 bushels; ten years later on two-thirds the acreage the yield was 30·68 (a not unexpected result); in 1905–14 it was raised to 32·45, but in 1922 on 136,000 acres the average out-turn was only at the rate of 30½ bushels. Norfolk, with much poor and light soil, had an almost uniform rate of production in each decade (31·36, 32·57, 32·87) on areas respectively of 162,000 acres, 106,000 acres and 107,000 acres; this is now reduced to 31 bushels. In Essex, on a rising acreage, oats fell from 45·96 to 45·57, to 44·25 and finally to 42·4, barley on a declining area from 34·54 to 33·69,

33·64 and 31·1. Any possible connection between the weight of barley and the density of the arable sheep population here and elsewhere in East Anglia is negatived by inspection of the relevant statistics. Economic conditions were certainly favourable in the last, or pre-war, period; they were very disadvantageous in the first and not much alleviated in the second, yet this catalogue, which could be almost indefinitely extended, bears no relationship to economic or climatic happenings, and was not the result of divergent farming practices; further, with certain exceptions, it is not applicable to Scotland or Ireland, where greater freedom of judgment has been preserved. If the latest [1] available decade, viz. 1912–21, is turned to, the same striking inconsistencies are found—inconsistencies which it is difficult to believe were due to the war: Durham, Cornwall, Leicester and Monmouth alone increased their yields of wheat, Cornwall and Monmouth of barley, and the following heterogeneous collection were heavier producers of oats—Durham, Huntingdon, Leicester, Cheshire, the North Riding of Yorkshire (very markedly), Westmorland and Monmouth. The tendency towards uniformity in the annual reports of each separate county has been progressive, for up to some twenty years ago yields much in excess of the normal were frequently in evidence. Thus, in 1902 the oat crop was affected to the following extent: in Dorset (ten-year average, 39·8 bushels) the yield was given as 56·72 bushels, in Cornwall (ten-year average, 38·41) as 48·13, and in Cumberland (ten-year average, 41·40) as 49·30 bushels. Nowadays the average in these counties is practically the same, but excesses of such dimensions are unknown.

So far the evidence adduced has been internal, but the most vital is of an extraneous character, and it will now be discussed. In the forefront must be placed records published by *The Times* newspaper since the year 1863; these represent the original Rothamsted figures, which were thus merged into annual statements, and now comprise data relative to harvest conditions in each county of Great Britain at monthly intervals from July to October, terminated by exact estimates of the weight of each crop. They deserve very close attention, for they form a sequence extending over a much longer period than is represented by the life of the official produce statistics, and they are based upon the statements of a body of agriculturists numerically much stronger than the Crop Reporters, acting in an honorary capacity, and representative solely of landowners and farmers. Moreover, the

[1] In conformity with the Corn Sales Act the unit of measurement adopted for cereals has, since 1923, been the hundredweight, and direct comparison with the three subsequent years has, therefore, been made impracticable owing to lack of information as to the "natural" weight of the grain.

figures supplied by these persons have been substantiated by actual weighings. As long ago as 1871 reference was made to "these statistics collected from as many as forty or fifty growers in each county, and those scattered through the different Poor Law Unions so as to embrace every district of each county under as many separate estimates"; in 1910 no less than 750 persons assisted the inquiry; the normal number would, up to 1919, appear to have been half as large again as that of the Crop Reporters, viz. over 300. *The Times* itself has always maintained that its correspondents' estimates "if anything, err on the side of under, rather than over, estimating, as is shown by their marginal notes," while the correspondents themselves, as "experienced and eminent agriculturists . . . constantly bear in mind their previous estimates made in most cases over many years." Such is the personnel employed—a type which, *pace* the Ministry itself, should fundamentally be biassed in favour of low estimates. Of their methods it can be said that they closely resemble those pursued by the Ministry's Crop Reporters, but *The Times* has never anticipated any convergence in the results secured, even going so far as to warn readers in advance that its figures "will not coincide with the official estimates." Such warnings are quite uncalled for, as general unanimity of opinion could never be attained, and would indeed be looked at askance by statisticians, by whom either of two alternatives might be anticipated, viz. (*a*) that, despite wide variations in estimates relating to individual years, crops and areas, the rival figures over a large unit of time or space would tend to approximation, or (*b*) that, for reasons given above, the unofficial Reporters would consistently record yields below those prepared by their opposite numbers. It is, accordingly, very surprising to find an overwhelming majority of the figures applicable to England, Wales and Scotland (*The Times* omits Ireland) in the case of all crops, cereal [1] and root alike, year after year, reported by the newspaper as in excess of the official statements. Confirmation that both authorities scrupulously recognise local conditions is shown by the fact that the yields of certain county areas differ proportionately, as do those relating to the separate crops; again, both agree in gauging the relative fluctuations between one year's out-turn and that of the next. It resolves itself into this, that the one consistently remains upon a higher level than the other. Does the Ministry in any given year record the yield of oats in Hertford-

[1] Wheat, in Scotland, provides the only exception to this rule, that Board's figures being generally slightly above those of *The Times*—further evidence of the difference between official standards north and south of the Tweed.

shire as 38·18 bushels, then *The Times* gives it as 44·4 bushels; if Huntingdonshire officially produces 4·7 tons of potatoes, then *The Times* figure is 6·5 tons; of mangolds we have to choose, in Cheshire, between 34 tons and 23·3 tons, of turnips, in Kent, between 17 tons and 11 tons. Attention to local conditions is generally apparent, but the compilers agree regularly in differing as to the weight of crops.

The writer has pursued the matter to considerable lengths by analysing the yields of four standard crops (wheat, barley, oats and potatoes) as recorded for each county of England in three widely separated years with varying climatic conditions—viz. 1906, 1912 and 1918. Briefly summarised, the results were as follows: in 1906, out of 123 instances *The Times* figures exceeded the official ones on 98 occasions, in 1912 on 87 occasions out of a similar total, and in 1918, 96 times out of 120 crop instances; the respective percentages were 79·6, 70·7 and 80·0. The differences in favour of *The Times* ranged up to over 25 per cent. in the case of cereals, and of more in that of roots, while in the minority of cases where the official figures exceeded the unofficial, they did so by much smaller margins. Of the three corn crops, wheat received more favour from the Ministry's officials, as out of the grand total of 82 occasions upon which its cereal figures were above those of *The Times*, 34 related to that crop, 25 to barley and 23 to oats.

If the ground is shifted in order to illustrate the effect of such county records upon the separate countries concerned, the year 1922 may first be taken as typical. *The Times* figures are given in italics, those of the Ministry are in Roman type.

	England.	Margin in favour of *The Times*.	Wales.	Margin in favour of *The Times*.	Scotland.	Margin in favour of *The Times*.	Great Britain.	Margin in favour of *The Times*.
Wheat .	*33·1* 31·2	1·9 bus.	*29·0* 27·9	1·1 bus.	*35·3* 38·6	- 3·3 bus.	*33·1* 31·4	1·7 bus.
Barley .	*30·9* 29·8	1·1 ,,	*32·3* 28·0	4·3 ,,	*40·5* 37·5	3·0 ,,	*32·9* 30·5	2·4 ,,
Oats .	*37·8* 34·9	2·9 ,,	*36·5* 29·6	6·9 ,,	*46·7* 38·9	7·8 ,,	*39·8* 35·9	3·9 ,,
Beans .	*26·6* 24·6	2·0 ,,	*21·0* 26·0	--5·0 ,,	*38·7* 34·6	4·1 ,,	*27·3* 24·8	2·5 ,,
Potatoes	*7·8* 7·2	0·6 tons	*8·4* 6·6	1·8 tons	*7·9* 7·6	0·3 tons	*7·8* 7·2	0·6 tons
Mangolds	*25·1* 20·5	4·6 ,,	*17·1* 15·4	1·7 ,,	*20·4* 17·2	3·2 ,,	*24·3* 20·3	4·0 ,,
Turnips and Swedes	*18·3* 13·4	4·9 ,,	*13·2* 11·7	1·5 ,,	*24·3* 17·0	7·3 ,,	*18·5* 14·5	4·0 ,,

It will be observed that only in two cases—that of wheat in Scotland and of beans in Wales—were the official figures above those of *The Times*. Over a series of years, taken haphazard from 1906 to 1923, the margin in favour of *The Times* works out as below.

	England.	Wales.	Scotland.
Wheat	1·28 bus. + 3·9%	2·42 bus. + 8·7%	0·82 bus. − 2%
Barley	1·49 bus. + 4·8%	3·11 bus. + 10·4%	2·27 bus. + 6·3%
Oats .	2·94 bus. + 7·6%	4·79 bus. + 14·3%	4·35 bus. + 11·4%
Beans	2·01 bus. + 7·4%	1·40 bus. + 5·3%	0·30 bus. + 0·86%
Potatoes	0·21 ton + 3·3%	0·95 ton + 16·7%	0·36 ton + 5·3%
Mangolds	3·65 tons + 20·1%	2·06 tons + 12·6%	3·65 tons + 20·1%
Turnips	3·53 tons + 31·3%	2·70 tons + 20·5%	4·19 tons + 24·8%

There are unmistakable indications that the above margins have widened during the last quarter of a century, and widened as the result of a uniform improvement in county figures given in *The Times'* columns. If the earlier years are consulted, it can be seen that the standard adopted by *The Times* was slightly above that arrived at by Laws and Gilbert, *e.g.* for wheat in the United Kingdom its normal "for a lengthy period prior to 1871" was 29½ bushels, corresponding values for England being 29·9 bushels, for Wales 27 bushels, for Scotland 29 bushels, and for Ireland 25 bushels—in other words, about 4 per cent. above the Rothamsted figure. A yearly comparison extending from 1866 to 1879 shows Rothamsted to have been exactly one bushel below *The Times* (25·5 *versus* 26·5), due to the fact that the former series was more depressed by bad seasons—*e.g.* 1879, when it recorded 3 bushels below *The Times*. The separate countries of course occupied corresponding positions in each series, but oats, barley and, above all, potatoes were, according to *The Times*, notably heavier producers.

Such are the broad results of a comparison between these two similarly collected sets of figures, the official and non-official. Before expressing an opinion upon their respective merits it must be inquired if there is any statistical disability inherent to *The Times* methods. The answer is that there is only one divergence in practice, which is as follows. *The Times* prepares county figures by taking the arithmetical average of its correspondents'

statements, while, as already stated, the Ministry weights these areas; again, county figures are similarly treated by each authority in building up averages for the separate countries. Momentarily, this discrepancy might in part appear to be responsible for the difference in results, but it can be shown in reality to bring them closer together than would otherwise be the case. Thus, a test made upon the official figures for English counties in 1886 gave these results:

	Wheat.	Barley.	Oats.	Potatoes.
Weighted average . .	26·87	32·23	39·98	5·81
Simple average . .	26·0	30·63	38·5	5·76

Here, then, there was a mean gain of 1·32 bushels, which could legitimately, and in proportion, be added to the corresponding *Times*' statements. In later years, due to the redistribution of the cereal producing areas and the equalisation of "weights," the difference became less marked, amounting to 0·36 of a bushel by 1922, but in the case of potatoes it then represented half a ton an acre. Further, the smaller units are not adversely affected by this procedure, for an examination into the comparative values attributed to yields in such statutorily divided counties as Lincolnshire, Suffolk and Sussex, with unequal areas under certain crops, reveals no variation from the standard difference, but possibly evidence of the difficulties attendant upon weighting. We are, therefore, left with the knowledge that any bias due to the composition of the statistics themselves has favoured the official series. It should be added that *The Times* figures for the United Kingdom *are* rightly weighted in proportion to the areas concerned in each separate country; failing this, such records would be valueless owing to the predominant position occupied by England among the small number of units concerned. If, then, it is asked why *The Times* estimates are preferred to the official series, the answer is that they have not tended to stagnation, have more freely recognised chronological and geographical variations, and are in closer harmony with the independent Scotch figures.

So much for the most important outside evidence, which more than bears out the conclusions already suggested by close examination of the official returns, but a further indication is quite recently to hand. In the autumn of 1925 the Ministry of Agriculture, acting upon the suggestion of Sir Rowland Biffen and the writer, instituted an inquiry into the extent to which the newer breeds

of wheat were under cultivation in the east of England. It emerged that in the ten counties concerned, which between them produced half the wheat grown in England, no less than 46 per cent. of their total wheat area was devoted to Little Joss and Yeoman I and II. In these circumstances is it unreasonable to expect yields to have been beneficially affected? Yet, if the present-day output of these territories is compared with that found before the products of Sir Rowland Biffen's work had become disseminated, what do we find? A decline in every instance, ranging from two bushels per acre, for the latest available ten-year average, compared with that of the period 1905–14; if every allowance be made for war and post-war conditions, the results are still difficult of acceptance. The majority of eastern counties farmers, if questioned, will express the opinion that the weight of yield has sensibly increased during the last decade, mainly by reason of the elimination of the lower-grade producer. The official statistics do not deny a substantial increase in the productivity of the western, the northern and the Welsh districts—especially remarkable are those found in Northumberland, Durham, Devonshire and North Wales—but such increase has little effect on the average yield applicable to the whole of England: their wheat (as also their barley) areas are too small to be effective when ranged against those of, say, Essex or Norfolk. On the other hand, it is in effect admitted that the *potential* yield of the whole country has been augmented, for an appreciable increase in area would, in these circumstances, not necessarily imply a reduction in average out-turn.

To recapitulate: everything points to the conclusion that the official statistics of all crop yields in England and Wales display, in varying degree, undue conservatism.

(1) If compared with their own initial results they exhibit stagnation.

(2) If placed side by side with an alternative series, compounded on similar methods by more numerous local observers, they fall systematically below it, crop by crop, county by county, year after year.

(3) Anomalies of a chronological and geographical nature are numerous.

(4) They deny adequate expression to the occasional appearance of really good seasons.

(5) They refuse recognition to the plant-breeder.

(6) They are out of harmony with the corresponding returns collected in Scotland and Ireland.

(7) They fail to produce the amplitude of range found in other countries where cereals are produced under comparable conditions; here, it must be admitted, they suffer in common with those of Scotland and Ireland.

(8) There is the contingent possibility that the practice of crop forecasting, as carried out during the last twenty years, has made its depressing influence felt upon them—consideration of this must be deferred to a subsequent occasion. They do, of course, reflect the general differences between one season and another, between one crop and another and between one part of the country and another, but conservatism has, doubtless unknown to their sponsors, gradually enveloped them. An expression of opinion will inevitably be sought as to the extent by which they fall short of true estimates. A precise answer is clearly impossible, but it may be hazarded that over 5 per cent. and under 10 per cent. in the case of wheat, possibly 7 or 8 per cent. for barley, 10 per cent. for oats and potatoes, and anything from 15 to 20 per cent. for roots would not appear exaggerated figures to put forward after minute examination of all relevant data. The largest increases appear to be applicable to England and Wales, the United Kingdom being affected to the extent of, perhaps, 2½ bushels of wheat, 2 bushels of barley and 3½ bushels of oats. Translated into terms of additional home-produced foodstuffs, these increases would be negligible, implying, for example, at most one-tenth of a bushel of wheat per head, and therefore not affecting any calculation based upon the normal consumption; but they would at least form an acknowledgment to the plant-breeder and the grower, and would reinstate the country on its former international standing.

Effective remedial measures against the prevailing tendency to under-estimate are not easy to propound, but certain safeguards might be instituted; thus, in the first place, it would seem reasonable to insist upon the actual weighing, by the Crop Reporter, of a minimum number of samples per unit of area; this procedure would not supersede the existing peripatetic and inquisitory methods, but would provide an additional, and automatic, check upon human judgment. It is apt to be forgotten that the headquarters statistical staff is only concerned with the ultimate combination of the 330 area estimates, and is almost powerless to affect the results: everything depends upon the views of the local employee, and upon his ability fairly to weight the numerous divisions of his territory. There would appear to be no reason why the present trend should not be pointed out to Crop Reporters,

and instructions issued not to return below average figures unless based on undeniable evidence. Better still would it be to put into force a proposal officially mooted some time ago, viz. that "standard" acre plots should be established in different parts of the country, under the supervision of Agricultural Research Stations, in order that their measured yields should be available as a basis of comparison, for a great authority has stated to the writer that there is no more difficult undertaking than to assess the weight of grain, whether by eye when standing, or by hand when in sheaves—varieties of breeds can alone deceive even experts. It is confidently believed that the introduction of such forms of supplementary ascertainment would soon be favourably reflected in the returns of British crops.

The aim of this article has been to throw light upon a little known problem, and the writer would be the last person to criticise either the head-quarters staff of the Ministry or the efficacy of the methods adopted in its statistical work, as he knows by personal association, extending over some years, the extremely high standard maintained—a standard which has made our Agricultural Returns the envy of other countries. What is put forward in no carping spirit is that there is evidence that its local, and merely part-time, representatives have, by understating their achievements, gradually, and unwittingly, detracted from the reputation of English agriculturists.

J. A. VENN

MR. ROBERTSON ON BANKING POLICY

MR. ROBERTSON'S book, *Banking Policy and the Price Level* contains two trains of argument directed against the policy of price stabilisation through the control of credit. Professor Pigou's Article in the June number of the *Economic Journal* discusses the latter portion of the book,[1] where it is contended that a rise or fall of prices ought in certain circumstances to be deliberately aimed at as a means of regulating the supply of circulating capital. Before examining that, I shall start with a criticism of the earlier chapters.

This part of the argument may be summed up as follows. Changes occur from time to time in the productivity of industrial groups, or in the conditions of demand, such that the equilibrium position, in which supply and demand will balance, corresponds to a greater (or smaller) total output and consumption of wealth by the community. The transition can be more smoothly effected by an increase (or decrease) in the monetary supply, involving a rise (or fall) in the price level, because " a more direct and immediate stimulus to increased output is afforded by rising money receipts than by falling prices of the objects of expenditure " (pp. 26–7).

The account which Mr. Robertson gives of the various ways in which the changed equilibrium position may be brought about depends on the behaviour of an extremely rarefied kind of economic man. This economic man is equipped with a supply-and-demand curve, relating the disutility of the effort he is willing to make to the utility of the reward for which he is willing to make it. If, for example, he makes needles, he will exert more effort, and therefore produce more needles, when he can get 4½ pounds of bread for a packet of needles than when he can get only 4. If, therefore, there is an unusually good harvest people will, on the average, find it worth while to work harder and produce more of other things. And the same will happen in a greater or less degree when some improvement in production cheapens *any* commodity.

[1] Nine out of Professor Pigou's twelve pages are devoted to the exposition of a matter which, though dealt with in the Mathematical Appendix (pp. 60–4), is otherwise hardly referred to in the book.

Or the change may be not in supply but in demand. People's desire for a particular product may be intensified. They will thereupon be impelled to exert more effort and increase their output of other things, in order to get more of the product they desire in exchange.

It is difficult to take this account of a producer's motives seriously. Does it mean that the decision of the employer (who alone is responsible—pp. 19—21) as to the output of his business depends upon the personal exertions required of himself by any increment of output? If any reply is needed to such a suggestion, it may be pointed out that there is not likely to be any simple relation between his personal exertions and his output. A restricted output may easily give him more trouble than full employment, and his business will have been planned on such lines that when it is fully employed it will not demand more effort from him than he is prepared to give.

And even when an increment of output does involve or is expected to involve an increment of effort, it is unlikely that this will be a serious factor in the producer's calculations. Under anything like normal conditions the profit on the extra output, contributing as it would to rent, interest, depreciation and establishment charges, will be far more than a mere remuneration of his effort. And where the margin is narrow, his object is to diminish an overhead loss and to keep the concern at work with a view to the future. His willingness to relax effort in favour of "gentlemanly pursuits such as golf and politics" (p. 20) cannot count for very much in his decision.

The effort which does vary with output is that exacted from the workmen. Are we to regard the employer as acting on behalf of his workmen? Is it his paternal function to adjust their efforts to the new equilibrium? He knows nothing of the new equilibrium, and it would be for the workmen themselves to demand such increase or decrease of hours and earnings as the curves imbedded in their consciousness may require.

Mr. Robertson would have the banks assume the responsibility. I suppose that means that if there is a world scarcity of wheat, the banks would know that the real reward of effort has diminished, and that it is not worth while for people to work so hard. They would proceed accordingly to contract credit, and rely on the consequent trade depression to compel a reduction of output. Or, if abundance offered an increased reward for effort, an expansion of credit and rise of prices would bring about an increase in effort and in output.

But unfortunately these credit movements do not produce a general increase or reduction of hours of work. The credit contraction results in some workpeople being thrown out of work altogether or put on half time, while the main body are as fully employed as before, and do not secure any reduction in the marginal disutility of their efforts. The credit expansion, once the unemployed have been absorbed, takes effect chiefly in rising prices, with only a temporary and unequally distributed increase of hours in the form of overtime.

Perhaps Mr. Robertson would hope to see an employer meeting his men and saying that there have been unusually abundant crops in the world, that Bank rate has been reduced with a view to raising prices by 2 per cent., and that as effort has become so much more worth while, their hours are to be increased from 47 to 48½ per week, and their wages per hour are to be raised by 2 per cent.

But why should it be the business of banks any more than of employers, to estimate the marginal disutility of effort? The matter is essentially one for the workpeople to judge for themselves. If they did ask for an increase or decrease of hours, and the employers agreed, undoubtedly the banks ought to adapt their operations to that situation. But it is not clear that any actual rise or fall of the price level would be called for.

A change in output arising from such a cause is analogous to the case where industry, having for any reason been employed below (or above) capacity, returns to equilibrium. When industry is under-employed, an expansion of credit is the best cure. Mr. Robertson says that "the employer is likely to pay more attention to rising money profits than to a lowered 'cost of living' for himself or to the possibility of reducing wages owing to the lower cost of living of his workmen" (p. 27). He does not argue out this point in detail, and he confines himself to the contrast between "rising money profits" and "a lowered cost of living." He does not examine the response of the employer's motives to a policy of stabilisation which would keep the prices stable, so far as they depend on human effort, but would let them vary, so far as they depend on the supply of natural products (Mr. Robertson's policy (*b*) on p. 25). This policy promises "rising money profits" to the manufacturer, because it allows a larger output with the *same* price level.

In applying his "appropriate variations of output" to practical economic life, Mr. Robertson thrusts on one side the variations in productivity, which "occur independently in

particular industries owing to specific inventions, etc." (p. 9), and the "alterations in the intensity of desire for particular articles . . . owing to changes in taste and fashion" (p. 10).

He claims that variations of productivity "occur more or less simultaneously in all industries in association with phases of the trade cycle" (p. 9). Productivity is greater during a depression, less during a boom. A strange way of accounting for a general increase in production! That there is a general increase in productivity when there is a general *decrease* in production!

In fact the practical applications of his theory of appropriate fluctuations hardly extend beyond the case of fluctuations in the demand for the *durable instruments of production*.

Suppose that, "owing to an invention," the demand for machines on the part of those who make consumable commodities expands. They will offer, we are told, more of their products in exchange for machines, and will increase their output in order to acquire them. So, it is argued, there will result a general increase in output (pp. 29 –33).

Here, it will be seen, the change in the equilibrium point arises from something *within the cognisance of the employers*, and it is not for the workmen to take the initiative in proposing increased hours. The employer will bid them work harder, for, if they can produce an extra hundred thousand packets of needles, he can obtain a machine which will cheapen the production of needles ever afterwards.

This romantic hypothesis misses the mark, because manufacturers do not in general rely on a temporary increase in their own output as the means of providing the cost of new capital equipment. It is the *investors* who supply the producers with the requisite resources. If owing to an invention the use of machines becomes more profitable, the result is not mainly to increase the amount of resources spent on buying machines, but to raise the rate of interest offered.

The amount spent will increase if the banks make additional advances for the purpose. Mr. Robertson seems to take for granted in his concluding chapter that the volume of investible resources ought to vary with "fluctuations in the desirability of acquiring instruments." If they do not, it is for the banks to make up the deficiency even by "methods which involve a rise in the price level" (p. 91). In the special case where an epoch-making invention points to the replacement of a really considerable proportion of the world's fixed capital, delay arising from a

scarcity of investible funds may well be injurious. But this is not the only limit. The capacity of industry to produce the new equipment is also limited, and, if the change is so revolutionary as we have supposed, the time taken is likely to exceed the limits of an entire cyclical fluctuation, and may extend over several. In that case inflation will contribute little to hasten the process. Indeed, fluctuations in the demand for the new equipment are in themselves wasteful, since there will be intervals when productive power is incompletely employed. A policy of inflation sustained for several decades can hardly be contemplated.

The other branch of Mr. Robertson's argument (Chapters V and VI) advocates monetary fluctuations as a means of regulating the supply of circulating capital.

Circulating capital at any time is composed of the goods in course of production, together with the finished goods in stock. The amount of circulating capital outstanding is equal to the total outlay [1] incurred up to that time in respect of all goods not yet sold to the consumer. Mr. Robertson expresses it in terms of the "production-period," that is to say, the average length of time which elapses between the date at which the production of goods is taken in hand and the date at which they reach the hands of consumers. The total of circulating capital is less than the total output that would accrue during a production period. In fact, if the outlay on goods were spread evenly over the period up to the delivery of the goods to the consumer, circulating capital would be equal to *half* the value of output during a production period. If the outlay is more in the earlier stages of production (as is likely, since the later stages include the time when finished goods are held in stock) the proportion is more than half (p. 43). If the proportion is n, the production period D, and the output of goods per unit of time is T, the amount of circulating capital is nDT.

The main argument in this part of the book rests on the analysis of two hypothetical cases, where an increase in production occurs, either (1) through improved productivity on the part of people already employed, or (2) through the absorption of an increment of population into employment.

Mr. Robertson assumes that if the volume of output per unit of time (or "day") rises from T to T + T′, and if the total stream of money (S) remains unchanged, the price level will forthwith fall in the proportion of T to T + T′. By the "stream

[1] Fixed capital would enter into the total outlay in the form of interest and depreciation.

of money " he means the daily amount of money spent throughout the community on final products (whether consumption goods or capital goods). It is what I have called the "consumers' outlay" (see *Currency and Credit*, p. 41), and I prefer this phrase, for the "stream of money" might equally mean the consumers' income or the total turnover of money. In a state of equilibrium, when the consumers' outlay exactly balances production, if P is the price level S = PT. Mr. Robertson puts M for the total stock of money (which I prefer to call the "unspent margin"[1]) and $K = \frac{M}{S}$ or $\frac{M}{PT}$. K, the ratio of the unspent margin to the consumers' outlay, is what Professor Foster and Mr. Catchings call the "circuit time of money" (see Chapter XVIII of their book, *Money*, pp. 303 and 311—12). Their "circuit velocity of money" is $\frac{1}{K}$.

First consider Mr. Robertson's version of what happens in the case (1), where the rise in output is caused by improved productivity and not by increased employment (pp. 54–5, 65–6). The supply of circulating capital, "while remaining constant in terms of days' labour, will have automatically increased in terms of goods in the same proportion as the daily output." The banks can bring about a further increase in the supply "by making additional loans of an appropriate amount at an appropriate pace."

Mr. Robertson puts forward the supposition that they so manage as just to counteract the fall in the price level. For this purpose they must bring about an increase in the consumers' outlay equal to PT′, the value of the additional output to be absorbed. But if the banks merely increase the daily amount lent by PT′, that will not be enough. For if people find their incomes thus increased, and the accustomed ratio between their incomes and their cash balances disturbed, they will endeavour to restore the ratio by restricting expenditure. If they restrict expenditure by NPT′ per day, the consumers' outlay will fall by that amount, unless the banks still *further* increase their daily lending by an equal amount, so that the total additional lending amounts to (1 + N)PT′.

This curtailment of expenditure by the public will continue so long as the unspent margin is below its normal proportion, K, of the consumers' outlay. The unspent margin is increased

[1] The term "money" is ambiguous, and people may forget whether it does or does not include credit money.

daily by $(1 + N)PT'$, and the required increase of KPT' will be attained in $\frac{K}{N+1}$ days.[1]

Before proceeding to describe Mr. Robertson's second case, where production is increased by the absorption of an increment of population into employment, it will be useful to criticise his treatment of the first, and to see exactly what assumptions he has made in it.

In the first place he assumes that a change in output or in the consumers' outlay produces its full effect on prices at the very moment at which it occurs. This would only be so if there were no variation in stocks of finished commodities. He refers at a later stage (p. 75) to the possibility of "a more rapid withdrawal of goods from store involving a curtailment of the period of production." But in his mathematical analysis no place is found for variations in stocks.

The statement that the supply of circulating capital will have automatically increased, in terms of goods, in proportion to output, implies that there will be no fall of price till all the goods produced under the old conditions have been sold off.[2] But an increase in productivity involving a fall in replacement value is in practice certain to be reflected in a fall in price at a much earlier stage. Traders might, by mutual agreement, keep up prices for a time, but such agreement is not always possible, and in any case is not likely to be pushed so far as to prevent any fall of price whatever from occurring till all the old stocks have been disposed of.

As soon as cost of production is known to have fallen, there is sure to be some drop in prices, and with a given consumers' outlay the volume of sales will be thereby proportionally increased. The result will be that circulating capital, in terms of goods, bears *less* than the former ratio to output. Mr. Robertson, while rejecting this possibility, supposes that the supply of circulating capital requires to be increased *in terms of days' labour*, and he claims that an expansion of credit sufficient to counteract the fall in the price level would suffice to effect the increase.

He does not explain why the same amount in terms of days' labour should not suffice as before. He has not assumed any

[1] Mr. Robertson's formula (p. 66) is slightly different, because he assumes that one day must elapse before there is any curtailment of expenditures.

[2] A "production period" intervenes between the first increase in productivity and the appearance of the increased output on the market for sale to consumers. If during that period the daily sales are greater than under the old conditions of output (as they must be if prices fall), the stocks of goods produced under the old conditions will be exhausted before the end.

change in the production-period, D, or in the co-efficient n, which relates the requisite supply of circulating capital to it. With his assumptions, he is really providing the requisite increase of circulating capital twice over; after it has already occurred automatically, he seeks it over again by means of inflation.

Nevertheless, there is, as we have seen, some shortage of circulating capital, and it must be made good. Inflation is not the only resource. If markets are left to find their own level, the effect of the shortage of stocks will be that traders will for a time charge the consumer prices above replacement value. The volume of sales will therefore be less than the volume of output, though the traders' receipts in money will equal their disbursements. Sooner or later this process will restore equilibrium.

In the case where the increase in productivity is not permanent, but takes the form of abundant crops, the importance of accumulated stocks is especially apparent. The influence on prices is felt before the crops are reaped; the prospect of abundance leads dealers to sell off stocks and leave a smaller carry-over. But when the new crop becomes available, prices are not lowered so far as to sell off the whole within the year. Price policy is directed to providing a suitable carry-over into the following season, and is very soon governed by the prospects of the yield of the *next* crop.

The disregard of stocks of commodities, a serious enough error in relation to supply, is still worse in relation to demand. Mr. Robertson assumes that an increase in the consumers' outlay will cause (with given output) an immediate and proportional increase in the price level. But the immediate effect of an increase in the consumers' outlay is increased consumption at existing prices, provided by supplies from existing stocks. The rise in price only follows after an interval, when the depletion of stocks has become serious enough to call for some action in their defence. The length of the interval depends on various considerations. It is affected by the amount of the existing stocks. It is also affected by the state of employment of industry. If industry is not employed up to capacity, the stocks can be made good by fresh orders to the producers with little or no rise in price. As industry becomes more fully employed, the prices quoted by producers to dealers will tend to rise and delivery will tend to be delayed. But it will only be when these tendencies have become fairly persistent, and dealers are satisfied that the increase in demand is something more than a casual and temporary fluctuation, that they will raise prices to the consumer.

Mr. Robertson assumes that any additional daily amount lent by the banks occasions a precisely equal increase in the consumers' income. This assumption requires correction, and the fault here also arises partly from a disregard of variations in stocks of commodities. What the banks lend is, it is true, paid away almost as soon as it is lent, and, as it is paid, it becomes income to the recipients. But that is not the end. The recipients spend all or part of their additional income, and the resulting increase in the consumers' outlay draws upon the stocks of commodities. Traders, having to carry smaller stocks, are thus enabled to diminish their indebtedness. They may apply the whole of the additional receipts to diminishing indebtedness; if they apply less, the difference remains as an addition to their cash balances. Against the additional lending by the banks must be set these additional repayments, and the net effect on the unspent margin over any period is equal to the difference between the two, composed partly of an addition to the consumers' cash balances (resulting from an excess of the consumers' income over the consumers' outlay), and partly of the addition to trader's cash balances.[1]

Mr. Robertson's arguments are not invalidated by this error. Indeed he has understated his case. If the increase in the consumers' outlay approximates to the *gross* additional lending of the banks, and not merely to the *net* amount, that means that the inflationary effect of a given addition to the supply of circulating capital through this channel is all the greater.

At this point we may pass to the case (2), where the increase in output from T to T + T′ is due to the absorption into employment of an increment of population (pp. 55–7, and 66–70). Mr. Robertson assumes that the increase in employment is effected "by means of an inflation of amount N[2] spread over a production-period D." The unspent margin will have been raised thereby from M, or KS, to KS + N. After the inflationary process is completed, and the additional output has begun to come on the market, the consumers' outlay will be $S + \frac{N}{K}$, and the price level $\dfrac{S + \frac{N}{K}}{T + T'}$. We need not consider Mr. Robertson's hypothesis as to how the supply of money will be distributed between the new and old employed population. When equilibrium is restored, the

[1] In so far as the additional consumers' outlay is applied to investment, it goes in part to diminish the indebtedness of the investment market to the banks.

[2] N here has nothing to do with N in case (1).

wealth value of the unspent margin will have been raised to $KT + KT'$. If the banks create so much additional credit as will increase the supply of money in the proportion of $T + T'$ to T, the price level will rise to $S + \frac{N}{K}$.

Here there are two stages of credit expansion. The increase in employment is supposed to be started by an inflation of amount N, and then, when the consequent increase in output has materialised, a further credit expansion is called in aid to maintain prices at the level to which the first inflation raised them.

It is upon this case rather than the first that Mr. Robertson builds his argument. An expansion of credit will mean an increase in bank advances of a certain amount and an increase in the unspent margin *by the same amount*, and his contention is that there is no necessary equality between the community's *need* of additional circulating capital and its need of additional credit money.

If D is the production period, and the amount of circulating capital needed is nD days' output, then the rise of output from T to $T + T'$ would necessitate additional circulating capital to the amount of nDT'. If P is the price level, and the consumers' outlay, $S = PT$, then, in order that the price level may be unchanged, the consumers' outlay must rise from PT to $PT + PT'$. If M, the unspent margin, $= KPT$, it must rise to $KPT + KPT'$. The value of the additional circulating capital is $nDPT'$. In order that it may be supplied by the credit expansion without a change in the price level, we must have $KPT' = nDPT'$, or $K = nD$. If, as Mr. Robertson thinks, K is less than nD, the banking system alone cannot supply the need for circulating capital. His remedy is to rely on a further inflation of credit to make up the deficiency.

The initial "inflation of amount N" consists in additional bank advances, which provide that amount of circulating capital. The assumption is that output cannot increase more than in proportion to circulating capital. Here again we have an assumption which excludes variations in stocks of finished commodities. Stocks of finished commodities are the elastic portion of circulating capital, and if their variations be allowed for, the problem takes on quite a different complexion.

When the banks increase their lending per unit of time, the consumers' income is increased by approximately the same amount, and the consumers' outlay by this amount, *less* so much as is retained in consumers' balances. A great part of the addition to the

consumers' outlay will be applied to purchasing goods from stock, and the proceeds will go towards discharging traders' indebtedness. The net increase in working capital will be the excess of the sum applied out of the bank advances to production, over that applied to the consumption of goods purchased from stock. This excess (provided prices remain unchanged) will be equal to the increase in consumers' cash balances. The proportion of working capital to output will thus be diminished, and the diminution will be entirely in the part of working capital composed of finished goods in stock. To make good the shortage of finished goods, dealers will give further orders to producers, thus increasing the rate of output above that appropriate to the first accession of bank advances. These new orders require more bank advances, the reactions of which are super-imposed upon those set up by the first, and the shortage of circulating capital is intensified.

It will be seen, therefore, that the shortage of circulating capital, being in the form of a shortage of finished goods in stock, far from damping down production, directly stimulates it.

Traders cannot acquiesce in an indefinite depletion of their stocks. A certain interval is required to execute the orders given for fresh supplies, and, as producers become busier, the interval becomes longer. The result is that prices are raised to the consumer. The creation of additional credit by the banks does not directly affect prices, but only through the depletion of stocks.

Suppose the banks wish to stop the inflation in time to avert the rise of prices. They will begin to restrict credit, and so to discourage traders from increasing their stocks. If, to start with, industry was working below capacity, it is undesirable that the credit restriction should be imposed before industry has become fully employed. And as some prices are likely to rise very soon after the credit expansion begins, the banking authorities ought not in such circumstances to set themselves against any rise of prices whatever. The increased activity of producers will quickly evoke a rise in the prices of those materials of which the supply cannot be immediately increased (especially some vegetable and animal products). Even if industry as a whole is under-employed, some trades will be in full activity, and will raise prices as soon as they get additional orders, and among those which are slack, some will have been working at a loss, and will put up prices at the earliest opportunity. Such price rises as these are an unavoidable incident of any trade revival after a state of under-employment.

But further, it may be desirable that the banks should acquiesce not merely in these, but in such price rises as are necessary to protect stocks against consumers. The credit restriction should be sufficient to prevent orders being given beyond the capacity of the producers, but that will still leave stocks of finished goods below normal. If no other resources are available, traders can charge higher prices to consumers so long as this is so, and the extra profit can be gradually accumulated in the form of increased stocks.

A rise of prices to the consumer for the purpose of defending and reconstituting stocks, if not accompanied by any corresponding rise in the consumers' income and the consumers' outlay, is not inflationary. In the circumstances supposed it is an after-consequence of inflation. It rectifies the effects of a previous lag of the price level behind the consumer's outlay.

If the expansion of credit is stopped at the stage at which industry is employed up to capacity, not only is it not in an injurious sense inflationary, but it does not in any degree remedy the shortage of circulating capital. So long as industry is under-employed, credit expansion results in a greater output, and makes the deficiency of circulating capital all the greater.

In all his mathematical examples Mr. Robertson supposes that the inflation brings about a discontinuous rise of prices, and that thereafter the banks aim at keeping the price level unchanged.[1] With output unchanged, and the possibility of sales to consumers from stock excluded, an unchanged price level means an unchanged consumers' outlay.

Mr. Robertson assumes that when the normal proportion between the consumers' income and the unspent margin is disturbed, people will endeavour to restore it. If the consumers' income has been increased, they will restrict their expenditure with a view to increasing their cash balances. This process can, I think, be made more intelligible if we subdivide the unspent margin into consumer's balances and traders' balances. When the consumers restrict their outlay to something less than their income, their balances are increased, and the receipts of the traders are diminished. The result is to retard the repayment of the traders' indebtedness, and with a given gross daily amount of lending by the banks, to increase the net amount. In order to maintain prices, the banks must so increase the gross amount

[1] In the example quoted by Professor Pigou, where there is no increase of output, there are *successive* rises of the price level of this character, the price level remaining unchanged in the intervals.

of lending as to raise the consumers' outlay to the requisite amount.

Mr. Robertson makes certain assumptions as to the stages by which people will carry out this strengthening of their cash balances. So long as he supposes the price level to remain unchanged, these assumptions make no difference to his final result. When equilibrium is restored, people will have brought their balances into the proper proportion to their incomes, and the necessary increase in balances will have been effected by *saving* out of income. Since the purchasing power of the money unit has been constant, the amount saved will be exactly measured by the increase in balances. This saving will have given the banks additional resources which will be represented by additional advances to traders.

But it is not to be assumed that the shortage of circulating capital has necessarily been made up, even if the additional resources are sufficient. If the prices charged to consumers do not rise in proportion to the consumers' outlay, the volume of sales will be above normal, and will encroach upon stocks. The result may be that in spite of the restriction of the consumers' outlay, the volume of sales approaches or even equals output. Circulating capital may thus be little, if at all, increased. If goods are sold off (as they sometimes are) at less than replacement value, circulating capital will be actually diminished.

In the mathematical illustration which Professor Pigou expounds as Mr. Robertson's "First Problem," a valiant attempt is made to make an application of the integral calculus intelligible to the non-mathematical reader. For as soon as the hypothesis of prices remaining unchanged is abandoned, the amount of the additional resources saved can no longer be measured simply by the increase in cash balances. The wealth value of the savings is determined by the formula $\int \frac{dM}{P}$, where P is the price level and M is the unspent margin. Mr. Robertson assumes that M is of the form $a + bt$ (where t is the time) and that P increases in arithmetical progression by discontinuous steps, always remaining fixed for a period equal to K (where K is the ratio of the unspent margin to the consumers' outlay). These assumptions serve well enough for an exercise in the integral calculus, but seem too remote from practical facts to deserve discussion.

It would not be possible to find algebraic formulas for M and P that would come near to representing the reality. It is enough to say that with the total increases in M and in P given, the earlier

the increase in P takes effect and the later the increase in M, the less will be the wealth value of the total saving.[1] It is easy enough to see this without using the integral calculus, and even without using algebra.

Moreover, it is not safe to assume that there will be *any* restriction of the consumers' outlay. Both Mr. Robertson (p. 75) and Professor Pigou (p. 224) recognise that there may be a "flight from the currency," a rush to use up idle balances of money in the purchase of goods, when prices are expected to rise. There may be such a shrinkage in the wealth value of the unspent margin that inflation of itself will do less than nothing to remedy a shortage of circulating capital. And the greater and more prolonged the inflation, the more likely it is to provoke a flight from the currency.

When the inflation has reached the limit to which the banks are prepared to allow it to go, there may still be a shortage, and precisely the same problem will then have to be faced as if the inflation had never been started at all. If a flight from the currency has come about, a violent contraction of credit may be necessary, and an intense shortage of circulating capital may be experienced.

Mr. Robertson uses the term "lacking" in preference to "saving," because saving implies a voluntary act, and he wants to include the provision of capital resources without any intention or co-operation on the part of those from whom they are procured. "A man is lacking if during a given period he consumes less than the value of his current economic output. This is not always the same thing . . . as spending on immediate consumption less than his legal money income" (p. 41). We are not told how current economic output is to be measured or estimated, or exactly how it differs from income. Probably Mr. Robertson means "output" to include the interest, rent, or profit that a man becomes entitled to, and in fact to be identical with income except in certain special cases where the value of money itself changes. This strains the meaning of the term "output," but seems best to fit his use of the term "lacking."[2]

"Lacking" may be "automatic." When "an increase in the stream of money directed on to the market prevents certain persons from consuming goods which they would otherwise have

[1] If prices range from a minimum of P_1 to a maximum of P_2, while the unspent margin rises from M_1 to M_2, the wealth value of the saving lies between $(M_2—M_1)/P_1$ and $(M_2—M_1)/P_2$.

[2] "Spontaneous Lacking corresponds pretty well to what is ordinarily thought of as saving" (p. 47).

consumed " (p. 47), this is not necessarily lacking, for it may be that otherwise they would have consumed *more* than their current economic output. Mr. Robertson gives it the name of " automatic stinting." " Automatic lacking " occurs in so far as automatic stinting reduces its victims' consumption below their current economic output. Mr. Robertson proceeds to explain that automatic stinting occurs when " an additional daily stream of money competes with the main daily stream of money for the daily stream of marketable goods." The case he has in mind is, no doubt, that in which this competition raises prices, and so diminishes the purchasing power of the main daily stream of money. If prices do not rise, there is no automatic stinting, unless people are prevented from spending their incomes (*e.g.*, by an exhaustion of supplies).

But who, it may be asked, are the " certain persons " who are prevented from consuming goods which they would otherwise have consumed? Apparently they are the recipients of the pre-existing " main daily stream of money." But how is this stream to be identified? The daily stream of money is paid in return for goods and services. If there is a general rise of prices, the people who supply the goods and services will get higher payments for them, and will be free to consume as much as before. People with fixed incomes will no doubt find their consuming power diminished. The imposition of lacking " bears with special weight " on them (p. 75). But even this is not altogether clear, for it is not explained why their incomes are not just as good a measure of their " current economic output " after the rise of prices as before (or perhaps a better, for the new level of prices may quite possibly be nearer that which ruled when the incomes became fixed).

These criticisms are not by any means to be thrust aside as mere pedantry. If we try to solve doubts by referring to the mathematical examples, we find that automatic lacking, when it occurs at all, never lasts for more than *one day* at a time (pp. 60, 62, and 66). The reason is that it requires a discontinuous rise of prices to be interposed between the receipt of a day's income and its disbursement. Such discontinuous rises of prices might occur at the most acute crisis of a monetary collapse, but in the comparatively normal conditions with which Mr. Robertson is dealing they are no more than an abstraction. For practical purposes the ideas of automatic stinting and automatic lacking are completely nugatory.

A shrinkage in the purchasing power of a cash balance is

not "lacking" at all. If the holder reduces his cash by spending part of it, and consumes less in exchange for what he spends, owing to a rise of prices, that is "stinting," not lacking. If he retains the cash undiminished or reduces it only by investing, the loss is not even stinting, for it does not affect his consumption.

Mr. Robertson might quite well have left automatic stinting and automatic lacking out of his scheme altogether, with the very considerable advantage that for all other cases he could have used the familiar word "saving" instead of "lacking." For his purpose the idea that requires to be identified is what he calls "induced lacking;" the saving that is directed to reconstituting cash balances which have been reduced below the due proportion to income.

And even here his use of the word "lacking" does not square with his definition. A man who saves to increase his cash balance will not always do so by a diminution of his consumption. He may provide the means by reducing his investments. In that case what is induced is not additional lacking, but the substitution of one form of lacking for another.

A distinction is made between "long" and "short" lacking. "Long lacking is directed towards providing society with the use of the fixed and durable instruments of production." Short lacking provides circulating capital. Thus the distinction between long and short lacking depends not on anything necessarily within the cognisance of the people who lack, but on the use made of the resources provided by them. A man who increases his bank balance places a part of his resources at the disposal of the bank. No part of the bank's assets can be identified as specifically belonging to this part of its liabilities. Those assets will include advances some of which have been used for circulating capital, but others for fixed capital, and others have been lent to the Stock Exchange to finance investment securities. It seems impossible to say whether the lacking is long or short. Investment securities themselves provide funds for both circulating and fixed capital, so that the character of the investor's lacking is as unascertainable as that of the bank depositor.

Mr. Robertson's problem of circulating capital is governed by the postulate that short lacking is unprocurable except through the agency of the banks. In fact, he recognises no other sources of short lacking than either the banks or "direct spontaneous short lacking by *entrepreneurs*" (p. 50), and holds that when "a large and discontinuous increase in the demand for short lacking" occurs in the course of the trade cycle, the respon-

sibility for meeting it "rests almost entirely upon the banking system."

This assumption is erroneous, and in making it he has perhaps been led astray by his own definitions. In practice a very large part of the total amount of circulating capital is provided by way of *permanent* investment in the form of share capital, debentures, or partnership capital. There is no reason why a trader should procure the whole of his working capital by means of bank advances. It is more usual for him to cover from his permanent capital not only all his fixed plant, but the minimum to which his working capital is likely to sink. Bank advances need only provide for the margin between the actual working capital at any time and the minimum. The purpose of so providing for this fluctuating margin is to avoid having to accumulate a balance of idle money at any time when the working capital in use is small. Far from the demand for short-term loans exceeding the capacity of the banks, the problem in most countries is to find sufficient liquid investments to satisfy the needs of the banks. Even in England, the greatest of mercantile countries, this is often so.

When the growth of population leads to a growth in production, the new investment which provides for it *includes* the due proportion of working capital. Nor do existing enterprises hesitate to raise working capital by issues of shares or debentures, whenever they need it. Thus the whole resources of the investment market are there to draw upon.

A shortage of circulating capital does occur at a time of active trade, but that is merely because a credit expansion encroaches upon stocks of finished goods in the interval before prices are raised. The shortage of stocks cannot immediately be made good, not for lack of capital resources, but because it takes time to produce new stocks of goods.

Inflation, which is proposed as a remedy for a shortage of circulating capital, is itself the most usual cause of the shortage. That does not absolutely dispose of the case, for according to circumstances inflation may operate either to increase or to decrease circulating capital.

But even in the case where inflation does increase the supply of circulating capital, it is quite unnecessary to resort to a remedy so full of dangers in other directions, seeing that the shortage is not a very grave trouble and is in any case likely to cure itself by other means.

R. G. HAWTREY

THE END OF LAISSEZ-FAIRE [1]

Mr. Keynes has done more than anyone else in our day to revive the pamphlet. As the vehicle for the forceful expression of new or neglected thought, there is much to be said for it. Many people are too much engaged, and many more think themselves too much engaged, even to look at, let alone study, a thick volume. Even more have lost the art of sustained reading. Lectures are, in London newspaper offices, not "good copy"; and the few whose speeches are adequately reported are seldom those who care to convey anything intellectually novel or unconventional. The pamphlet of to-day, if it is to attain any considerable circulation, must be published, even if it is produced gratuitously by the author, or by a propagandist society, not at a penny, nor even at a shilling, but at a price that allows an adequate profit to the distributing agencies, and also some expensive advertising. Subject to these conditions, what is essentially a pamphlet may nowadays be more influential in reaching public opinion than the outcome of years of the scholar's unremitting toil. Mr. Keynes is a master in the technique of pamphleteering; and his latest production, provocatively entitled *The End of Laissez-Faire*, has dynamic effectiveness.

Note, first, the powerful use of descriptive analysis as an instrument of persuasion. There is much more than history in the author's brilliant survey of "the different rivulets of thought and springs of feeling" that combined, between 1700 and 1860, to form "the clearest and most distinguishable voices which have ever instructed political mankind" (p. 5). When we have had the story recalled in Mr. Keynes's vivid phrases, we are already half convinced (as with a certain chapter of Gibbon) that a dogma so powerfully supported required, for its triumphant progress, neither Divine inspiration nor scientific validity. Founded in philosophy by Locke and Hume; reinforced by Paley on the one hand and Bentham on the other; put into epigrammatic form by the French physiocrats and ultimately systematised by Bastiat; accepted by McCulloch and Nassau Senior; incorporated into popular Political Economy by Miss Martineau and Mrs. Marcet;

[1] *The End of Laissez-Faire*, by John Maynard Keynes, 54 pp. Hogarth Press. Price 2*s*.

widely promulgated by the manuals of the Society for Promoting Useful Knowledge; powerfully fostered by the pecuniary self-interest of the capitalist entrepreneurs; included in the broad range of Darwin's natural selection by the survival of the fittest in the struggle for existence, and finally sanctioned by the still wider sweep of Herbert Spencer's cosmic evolution—how could the dogma have failed to prevail "that every man should be left free to dispose of his own property, his own time and strength and skill, in whatever way he himself thinks fit, provided he does no wrong to his neighbours" (p. 24)? Its universal acceptance was thus not wholly, or even mainly, the work of the economists. Mr. Keynes brings out impressively the extremely slender support given to this dogma in the writings of Adam Smith, Malthus or Ricardo; and he emphasises the strong reaction against it of J. S. Mill and Cairnes, Cliffe Leslie and Alfred Marshall. "Nevertheless," he sums up, "the guarded and undogmatic attitude of the best economists has not prevailed against the general opinion that an individualistic *laissez-faire* is both what they ought to teach and what in fact they do teach" (p. 27).

Assuming, as we are nowadays prepared to do, that this favourite dogma has—to put it mildly—neither the validity nor the authority popularly ascribed to it, I am not sure that the British economists of the nineteenth century are entitled to so complete an absolution as Mr. Keynes generously accords to them. If they did not themselves, in their solemn treatises, indulge in the shallow optimism of Bastiat, they seldom demurred to the extravagances of the popularisers. Some of them wrote primers or popular manuals themselves, in which the general trend of economic doctrine was given almost as unguardedly, and nearly as free from qualifications, as in the "nursery pap" of Mrs. Marcet and Harriet Martineau. Nor did the undergraduate classes always get fare of intellectually superior quality. One conversation with an economic professor of forty years ago has remained in my memory. In reply to some forgotten criticism, expressed or implied, he assured me that whenever he found a really able student, who was likely to devote himself to economics, he always took care to explain to him how little validity there was in the popular versions of economic doctrine that were generally current; and he went the length of expounding to him the exact scientific truth in all its complexity. "As for the common run of undergraduates," he added, "who might be expected merely to succeed to their fathers' estates, or to take Holy Orders, or to earn their bread arguing cases in the law-courts, what is the use

of my upsetting their conventions and disturbing their minds?" If, as Cairnes declared in 1870, "Political Economy is . . . very generally regarded as a sort of scientific rendering of this maxim [of *laissez-faire*], a vindication of freedom of individual enterprise and of contract as the one and sufficient solution of all industrial problems" (p. 27), the authorised professional exponents of the science can hardly be allowed to have contributed nothing to this popular misunderstanding.

What the British economists have done, Mr. Keynes explains, has generally been to take the hypothesis that unfettered individual competition and the pursuit of pecuniary self-interest produce the ideal distribution of productive resources, not as a true statement, not even as the one nearest to the facts of society here and now, but merely as the hypothesis that lent itself most easily to elementary exposition—as Nassau Senior said, in half an hour's stroll round the garden! In like manner the British economists have used the hypothesis that if all individuals habitually purchased what they thought likely to give them the best value, this would result in the ideal distribution of commodities in the world, "so that each object of consumption will find its way into the mouth of the consumer whose relish for it is greatest" (p. 29). But the assumptions on which these inferences rested were unreal, and the logic itself was faulty. They ignored the facts that industrial society is not a mechanical aggregation of productive enterprises under the control of their several owners and directors, but organic in structure; that neither the business managers nor the consumers are either omniscient or even abreast of the knowledge of the time; that individual gain often results from manipulations and developments that are positively injurious to the common weal; that the assumed correspondence of individual profit with personal skill or industry, wisdom or honesty, is vitiated by the manifold inequalities of the competition in wealth and in opportunity; just as the attainment of the assumed maximising of enjoyment in consumption by leaving the distribution of commodities to the free competition of buyers is nullified by the unequal subjective value of the purchase-money to purchasers differing widely in affluence. Moreover, all the assumptions depend not merely on the absence of "monopoly" in the strict sense, but actually on the prevalence of competition so complete and frictionless that selling prices oscillate closely about the absolutely necessary expenses of production—whereas the world as we know it is full of "monopolies" in the economic sense, or of arrangements, customs, combinations and privileges, secret

or public, transient or durable, which do, in fact, enable the levying of a lasting tribute on the consumer—not to speak of a perpetual economic oppression of the wage-earner—in excess of the " just " (because scientifically necessary) price that the hypothesis began by imagining. All this Mr. Keynes succinctly expounds with a brilliancy of deadly persuasiveness. I should myself add the general criticism that, whilst the scientific method approves (and even prescribes) the use of hypotheses, this is not (as the economists have been prone to believe) their use as a method of exposition, but their employment as an instrument of investigation and discovery. To the member of the Royal Society nothing can be imagined more unscientific than the use of hypothesis and of inference, whether inductive or deductive, without the indispensable process of verification, by comparison of the order of thought thus tentatively arrived at with the order of things as objectively observed. The correspondence of inference with observation is, if only because of human imperfections, never precisely exact (even in astronomy); but it is a point of honour with the man of science never to regard his inference as valid until he has not only tested it, as far as may be practicable, by comparison with the facts, but also candidly recorded the inevitable failures or apparent failures of coincidence that he has thereby observed, and even done his best to measure the width of the gap, or the strength of the unknown forces apparently causing this failure of correspondence between inference and observation. The nineteenth-century economist, whilst making, at the outset, an unscientific use of hypothesis, has, for the most part, also ignored the necessity of verification. Thus it is that his cherished inferences have now to be discarded. " It is not true," Mr. Keynes trenchantly declares, " that individuals possess a prescriptive Natural Liberty in their economic activities. There is no ' compact ' conferring perpetual rights on those who have, or on those who acquire. The world is not so governed from above that private and social interest always coincide. It is not so managed here below that in practice they coincide. It is not a correct deduction from the Principles of Economics that enlightened self-interest always operates in the public interest. Nor is it true that self-interest generally is enlightened; more often individuals acting separately to promote their own ends are too ignorant or too weak to attain even these. Experience does not show that individuals, when they make up a social unit, are always less clear-sighted than when they act separately. We cannot therefore settle on abstract grounds, but must handle on its merits in detail, what Burke termed

"one of the finest problems in legislation, namely to determine what the State ought to take upon itself to direct by the public wisdom, and what it ought to leave, with as little interference as possible, to individual exertion," (p. 40). We are, accordingly—so Mr. Keynes seems to suggest—in the central problems of economics and politics, back to where we were a hundred and fifty years ago!

Mr. Keynes, fortunately, does not stop at this point. In his final pages he indicates, with regrettable brevity, some of his own tentative conclusions. He dismisses—as I think, with a whimsical unfairness—both "the opponent proposals" to *laissez-faire*, namely "Protectionism, on the one hand, and Marxian Socialism on the other"(p. 34). This will be taken in Great Britain as a reference to political programmes; and it is hard to say to which of the two main British political parties Mr. Keynes is (if he means this reference) here most unfair. There is surely much more to be said for the programme of the intelligent members of the Unionist (Conservative) Party, with its aspirations towards a greater social equality to be secured by a wider distribution of individual wealth and a general sharing in profits, than to sum it up as the "mere logical fallacy" of Fiscal Protection. It is equally inexplicable that Mr. Keynes should suppose that the British Labour Party—which, I may remind him, is a definite entity, with precisely ascertained membership, authoritative organs, and published official programmes and declarations of faith—includes (or has in its quarter of a century of existence, ever included) anything, either in politics or in economics, that can be honestly called "Marxian Socialism." The British Socialist Movement, which derives from Robert Owen, and (without its knowledge) also, as Mr, Keynes himself says (p. 45), from Bentham, has (to the oft-repeated regret of the German Social Democratic Party) at no time been predominantly or even appreciably "Marxian" in economic theory or political proposals; and the "Socialism" of the British Labour Party, if Mr. Keynes would only examine it with his own eyes, has been no more influenced than the Liberal Party itself by "a doctrine so illogical and so dull" as that which he attributes to Karl Marx—who was, after all, an economic historian of power, if not of light! Even where the leaders and spokesmen of the Labour Party have not been consciously Jevonian in their Theory of Value, the Party proposals have always been marked, as the Party's close association with the Consumers' Co-operative Movement has implied, by a sense of the fundamental interests of the community of con-

sumers, rather than that (to voice which is the special function of another body, the Trades Union Congress) of the manual working producers.

But we shall all be much more interested in Mr. Keynes's own conclusions than in his criticisms of others. He looks to a steadily increasing dominance of "collective" action, but of what he deems a novel type. "In many cases the ideal size for the unit of control and organisation lies somewhere between the individual and the State" (p. 41). He thinks that "progress lies in the growth and recognition of semi-autonomous bodies within the State—bodies whose criterion of action within their own field is solely the public good as they understand it, and from whose deliberations motives of private advantage are excluded" (p. 45).

This marks out a vast, and a continually increasing sphere for disinterested public administration of a non-profit-making character; and, so far, would seem to coincide with the empirical "Municipal Socialism" which forms so large a part of the British Socialist programme. But, curiously enough, Mr. Keynes gives, as the most obvious examples of the "semi-autonomous bodies within the State. . . from whose deliberations motives of private advantage are excluded . . . subject in the last resort to . . . Parliament"—not the "Municipal Socialism," very largely unselfconscious in its inception, which has now placed our County, Borough, District and Parish Councils in direct administrative control of some two thousand million pounds' worth of capital (subject to a mortgage debt of one-third of that sum), employing not far short of a million male adults, representing about one-twelfth of the whole community; nor yet the Consumers' Co-operative Movement, in which some four million families voluntarily unite to grow or manufacture, import or distribute some two hundred million pounds' worth annually of household supplies, obtained and allotted among themselves without any tribute to the profitmaker—but "the Universities, the Bank of England, the Port of London Authority, even perhaps the Railway Companies" (p. 42). This is in order to lead up to the luminous and pregnant suggestion that many large commercial joint-stock companies are silently passing into a similar phase, in which dividends become stabilised, the shareholders have no real control, and the concerns are managed by virtually independent directorates with practically no other view than that of their continued prosperous efficiency. This, he suggests, will be the coming form to be taken by a large proportion of British large-

scale business enterprise. As for "the State"—by which he means the National Government—the "important thing" for it "is not to do things which individuals are doing already, and to do them a little better or a little worse; but to do those things which at present are not done at all," as, for instance, the reduction and insurance of commercial risk and the prevention of cycles of unemployment by means of "the deliberate control of the currency and credit by a central institution"; the "collection and dissemination on a great scale" of all the facts of business and industry, "including full publicity by law"; the public control of saving, both as to the scale on which "the community as a whole should save," and as to the investments into which such savings should flow; and, finally, some concerted decision upon, and some control over the growth of population and its improvement in quality (pp. 47-9).

Now, it would be unfair to press Mr. Keynes too far with regard to a social and political programme to which he has been able to devote only a few closing pages. But it may be suggested—accepting, for the moment, all that he says as to the future development of his "semi-autonomous bodies within the State . . . from whose deliberations motives of private advantage are excluded"—that these unconscious agents for the community as a whole and for the consumers will be no more free, to say the least of it, from whatever may be the specific diseases of this particular form of organisation, and no less liable to socially injurious overgrowths and perverted metabolisms, than other social tissues. The National Government will therefore not be so completely absolved from its continual supervision and regulation as to be able to devote itself exclusively to Mr. Keynes's favourite social problems as (doubtless owing to the brevity of his statement) he appears to indicate. The "sublimated Capitalism" that he anticipates with so much restrained enthusiasm will require, as he certainly realises, to be "controlled," both above and below. The necessary control "below" has been fairly well worked out, in the Policy of a National Minimum embodied in the typically British legal regulation of Factories and Workshops, Mines, Railways, Shops, and Merchant Shipping, and the relevant sections of our Public Health and Education legislation. The corresponding control "above," in the matters of currency and credit, remittances and international exchanges, in the saving (and in the direction of investment) of capital, and I would add, also in the importing and exporting of commodities (which have certainly to be watched from the standpoint of national interests)

has still to be thought out—and no one can render us greater service in this field than Mr. Keynes himself.

I seem to find, alike in Mr. Keynes's omissions and in his preferences, a definite " phobia," which " unsuspected animates the whole "—an emotional dislike of the mechanism and working of Democratic Government, on the one hand, and of Vocational Organisation on the other. Assuredly, there is much to dislike in the form and temper of these dominating forces of to-day. But they exist, as truly as the sun's heat and the silent swelling of the ocean tides; and it is unscientific, in a political scheme, to ignore their existence. Moreover, the general opinion seems to be that, imperfect as they may be, they are on the whole, at least for the Britain of to-day, more effective than any known alternative development of social tissue in securing that general " consciousness of consent," without which no modern State can, as we now see, attain its highest efficiency. We have accordingly to take into account in our economic proposals both Political Democracy and Trade Unionism, along with their specific diseases and such remedial therapeutics as we can devise. In the twentieth century, to isolate Economics from Political Science would be to repeat in another form the mistake of our nineteenth-century predecessors when they implicitly predicated the " economic man," and then recommended the application of their generalisations to the very different average sensual humans of whom society is composed. In a word, neither projects nor predictions will be valid, even on the driest or most abstract economic topics, which do not take fully into account the psychology of the citizen. How can the coal dispute find any real or lasting settlement unless the terms of such a settlement are adjusted, not merely to what we may conceive to be the irresistible trend of economic forces, but also to the state of mind of the parties to the dispute, whether coalowners or miners, or Cabinet Ministers?

SIDNEY WEBB.

REVIEWS

Three Speeches on the General Strike. By the Right Hon. Sir John Simon, M.P., with an Introduction, Diary of Events, and Appendices. (Macmillan & Co., Ltd. Pp. xxv + 96. 2*s*. 6*d*. net.)

This little book gives us in a convenient form Sir John Simon's three very important speeches on the General Strike, a diary of the events from April 30th to May 20th, and Appendices of useful and relevent documents—the announcement of the decision of the T.U.C. to call a general strike and the T.U.C.'s manifesto, the judgment of Astbury, J. in the Sailors' and Firemen's Union Case, the resolution which Sir John Simon gave notice on May 11th of his intention to move, extracts from the debate on the passing of the Trades Disputes Act, 1906, the Act, and a note on the extent of the immunity of Trade Union Funds. The book thus sets before us in a compact form the important constitutional, legal, and political issues raised by the General Strike, and some part of the material necessary to decide them. After reading these speeches and documents, I think that two main questions emerge. The first is a legal question—was the General Strike illegal, and, if it was illegal, how far were those who took part in it protected by the Trades Disputes Act? The second is a political question—should the Trades Disputes Act be modified?

On the first of these questions the view taken by Sir John Simon and Astbury, J. is that the General Strike was illegal, and, being illegal, those who took part in it were not protected by the Trades Disputes Act. The ground upon which the view that the General Strike was illegal is based is this: It was not an industrial dispute, but an attempt to substitute the will of the strikers for the will of Parliament. It was therefore something in the nature of a seditious or treasonable conspiracy; and all who took part in it were liable to prosecution. That this is the true view of the law is probable—though it cannot be said to be certain till the courts have spoken. Obviously it was the view of Astbury, J.; but, since the case before him could be decided on the narrower ground that the acts done contravened the rules and orders of the defendants' Union, his remarks on the general question can

only be regarded as strong *dicta*. It is also the view of Sir F. Pollock (*Law Quart. Rev.*, xlii, 290–1). But, though I should agree that the General Strike was illegal, it seems to me that the view that those who took part in it were not protected by the Trades Disputes Act is, as a general proposition, more disputable. The underlying principle of that Act is to render immune from civil liability persons who do certain acts entailing this civil liability, if those acts are done in contemplation or furtherance of a Trade dispute. Thus under Section 1 liability to a civil action for conspiracy, under Section 2 liability for nuisance caused by picketing, under Section 3 liability for persuading to breaches of contract, and interfering with another's business, are removed, if the acts complained of are done in contemplation or furtherance of a Trade dispute. It seems to me that it might be argued that, though those who took part in the General Strike were criminally liable, yet they are protected from civil liability, because their acts were done *in furtherance of* what was undoubtedly a Trade dispute—the dispute between the coal-owners and the miners. I think that this is a possible view of the law, owing to the very wide terms in which the Trade Disputes Act is framed; and, because it is a possible view, I think, that the doubt as to whether or not the Trades Disputes Act protects those who engage in a general strike in contemplation or furtherance of a Trade Dispute should be cleared up by the Legislature. But this brings me to the second of the two questions raised by this book—should the Trades Disputes Act be modified?

The greatest anomaly created by the Trades Disputes Act was the reversal of the Taff Vale decision, which subjected Trade Unions to liability for their wrongful acts. The result is that Trade Unions are, in respect to many of their activities, placed above the law. It is perhaps one of the greatest ironies of history that the Liberal Party, which claimed descent from that Parliamentary party of the seventeenth century, whose greatest achievement was the subjection of the king's prerogative to the law, should have given to Trade Unions the position which it had denied to the king. As this book shows, this departure from legal principle was justified on the ground that it had been supposed, since 1871, that Trade Unions had this immunity. But this argument ignored two things. First, the great increase in the power of Trade Unions since 1871; and secondly, the Report of the Royal Commission on Trade Disputes in 1906 to which Mr. Sidney Webb was a party. The Commissioners said, "there is no rule or law so elementary, so universal, or so indispensable

as the rule that a wrongdoer should be made to redress his wrong. If Trade Unions were exempt from this liability they would be the only exception, and it would then be right that that exception should be removed. That vast and powerful institutions should be permanently licensed to apply the funds they possess to do wrong to others, and by that wrong inflict upon them damage, perhaps to the amount of many thousand pounds, and yet not be liable to make redress out of those funds, would be a state of things opposed to the very idea of law, order, and justice." Time has shown the truth of this view; for we cannot doubt that it was this immunity from the consequence of wrongdoing which was a principal cause of that "vague impression," to use Sir John Simon's words, "that Trade Union activities, to whatever length they were carried, were not open to effective challenge." In my opinion this anomaly should be at once removed, and the rule of law should be restored. Whether or not the Trades Disputes Act is thus amended, I think that the Legislature should declare the law to be as Sir John Simon has contended, and Astbury, J. has decided, that it is; and that this declaration of illegality should be extended to all sympathetic strikes.

In my opinion two general conclusions emerge from the history of Trade Union activities from 1906 till the declaration of the General Strike. In the first place, the Legislature should be more careful to safeguard the right to work than the right to strike—to increase the rights of those who desire industrial peace than to sharpen the edge of the weapon of those who desire industrial war. In the second place, there can be no restoration of that good will in industry, which the Prime Minister so much desiderates, till the supremacy of the law is restored. For that reason the existing statutes regulating Trade Unions should be repealed, and a new statute should be passed to incorporate Trade Unions, and to fix their rights, duties, and liabilities both to their own members and to the public.

W. S. HOLDSWORTH

My Apprenticeship. By BEATRICE WEBB. (London: Longmans. 1926. Pp. 459. 21*s*. net.)

MRS. WEBB'S volume, substantial, stout, even severe in its outward aspect (it is uniform with Mr. and Mrs. Webb's other published works, so familiar to all economic students), contains a great deal of unusually good reading. Not only is it a record of a particularly interesting life, but also of one which is in many ways singularly typical of its period. I should very much like

to know what would be the "reaction" of the modern young woman, who seems to her elders so much less oppressed by *Weltschmerz*, so much freer from doubt and difficulty than were the young women of the 'eighties and 'nineties, to Mrs. Webb's account of her own mental and spiritual tribulations, her pilgrimage through life.

Beatrice Webb was the eighth of the nine daughters of Richard Potter and Laurencina Heyworth. The Potters had added a strong tinge of Jewish blood to the sturdy Yorkshire stock of which they came. The Heyworths were from Lancashire; both families in their own ways were typical of their place and time. Mrs. Webb's two grandfathers, one the son of a tenant farmer, the other of a small domestic manufacturer, rose rapidly to wealth and power; both were members of Parliament, friends of Cobden and Bright. Her father, of whom she gives a most delightful description, was clearly not only a man of great personal charm and the most devoted and adoring of fathers, "the only man I ever knew who genuinely believed that women were superior to men, and acted as if he did," but a man of wide and varied interests. His daughters lived partly among the pleasures and activities of country life, partly in London, the London of those days where the people who were "in society" met most of the leading personalities of the time. The Potter daughters, moreover, travelled with their father not only in Europe but in America and Canada, for Mr. Potter was for ten years President of the Grand Trunk Railway. Mrs. Potter, if a critical and unappreciative mother (she disliked women, anyhow, and her daughters all turned into the sort of women of whom she particularly disapproved), was a remarkable and interesting individual. Eventually most of the nine daughters married, and brought a still wider and fuller range of interests into the already active family circle. Beatrice, as the youngest but one, evidently gained considerably from this enlargement of the horizon. Her brothers-in-law were a varied and interesting set of men, and her mental development was affected, as any young woman's must have been, by close contact with such men as Leonard Courtney and the two Crippses.

Beatrice Potter was not only the daughter of a typical nineteenth-century "capitalist," she was also, through her mother, the cousin of equally typical nineteenth-century cotton operatives, and one of the most vivid of Mrs. Webb's accounts of her varied experiences describes how she went, not as the rich Miss Potter, but as Miss Jones, a Welsh farmer's daughter, to live

with and among these unknown relations, and to gain a real acquaintance with their methods of life.

For the rest, this volume is the record of the life of a delicate and not very happy child, of a delicate and dissatisfied girl, of a young woman who was perpetually torn between the accepted mode of life of her class and time, and her own desire to lead a different kind of life, one of definite brain-work. In those days the daughter of well-to-do parents was not expected to have any independent life of her own, still less to adopt a profession, and Mrs. Webb, like so many other nineteenth-century young women, found the claims of her ambition, her intellectual conscience, her spiritual needs, perpetually in conflict with the claims of her family, the conventions of her time, the universally accepted view that the only duty of a well-to-do and nice-looking young woman was to stay at home and be happy till she made a suitable marriage, after which she continued to stay at home, and to direct her husband's house and entertain his guests as her mother had directed and entertained her father's house and guests.

Again, like so many other young people, Beatrice Potter was full of trouble as to social conditions. She was deeply conscious of the infinitely unsatisfactory economic state of her world, of the poverty of the mass of the people, the gulf between rich and poor, the need for social service. She tried rent-collecting and found it unsatisfying; she was in close touch with many of the most active social reformers of the time, with Mr. and Mrs. Barnett, with her relative Charles Booth. She met everybody and she discussed these problems with everybody. She had a close and remarkable friendship with Herbert Spencer; she gave much thought and time to his philosophy, she made various experiments not only in thought but in action. Nevertheless, she remained unsatisfied until she definitely adopted a career of social investigation, and found the perfect collaborator in her investigations.

What then differentiates Mrs. Webb from the rest of us? for in many ways the story of her early years is the story of many another nineteenth-century young woman, whose mind refused to accept the conditions of life as they were, who needed more satisfying outlets for her energies than were provided by the comfortable routine of Victorian housekeeping, who felt an urgent call to social service, who was harassed and perplexed by the problem of poverty and all that it involved. It is impossible to write of a living and distinguished woman, of an old acquaintance, as one would write of a historical personality, and perhaps the best one can do is to recommend everyone to read this volume

and make up his or her own mind upon this point. Mrs. Webb's mental and spiritual evolution is full of interest, as are her varied experiences of life. We shall all look forward to the appearance of the next volume. Many of us struggled with much the same difficulties; not all of us have arrived at the same conclusions; nor are we all willing to accept the same philosophy. But very few of us could give so clear, so dispassionate, so vivid and interesting an account of our experiences, even if we had, as not many have had, so full and varied a life to describe. Our last thoughts, as we put down the volume, will probably be not only What an interesting life those Potter girls had, and how much they saw and did, but also, What good use the one in question made of her life, and how absorbing it is to us, who have lived through other experiences as well as shared some of hers, to read her admirable account of them.

LETTICE FISHER

Karl Marx's Capital: an Introductory Essay. By A. D. LINDSAY. (Oxford University Press. 1925. Pp. 128. 2*s*. 6*d*.)

THERE are two extreme views held with regard to Marx, and especially about his theory of value. On the one hand, there are those who regard him as a muddle-headed thinker, and his theory of value as nonsense; on the other hand, there are those who look upon him as an inspired prophet and his *Capital* as a sort of gospel to question which is blasphemy. There is no doubt that economists in general have paid too little attention to Marx. Marxians have a disconcerting way of asking why he has been so neglected. One answer is to say that economists have not thought him worth consideration, and another reply is that their own works are his refutation. But of course neither is at all convincing, and it is to be regretted that Marx has not been given his proper place in economic curricula and his works taught and studied in the same way as those of other economists. The best way of inducing a Marxian to take a reasonable view of *Capital* is to persuade him to read the book, and this is not an easy matter, as he perhaps not unnaturally prefers small books or pamphlets about *Capital* to the three bulky volumes. Mr. Lindsay's book may be a disappointment to some in this respect, for, as he says, it is intended "to be an introduction to the study of Marx's *Capital*. It is not meant to be a substitute for such study" (p. 9), and it may be added that it is by no means easy reading.

Mr. Lindsay's book may be regarded as a criticism of Marx, and also as an apologia for him. He regards Marx neither as a muddle-headed thinker nor as an inspired prophet. He realises that he has been unduly neglected by economists, and is fully alive to the enormous influence of Marx on the thought of the nineteenth century and of the present day. He has done good service in emphasising the real contribution made by Marx, though he, I think, attaches too much importance to the labour theory of value. Apart from the theory of value, however, there is much in *Capital* that cannot be disregarded, and this the author has placed in its right setting.

The first chapter contains a very useful discussion of Marx's relation to Hegelianism, and in the last an interesting parallel is drawn between Marx and Rousseau. In Chapter II the doctrine of Economic Determinism is discussed, and Mr. Lindsay has shown by means of quotations from *Capital* and from letters of Engels, that Marx's theory was by no means so rigid as many of his disciples would have us believe. It is rightly pointed out that since Marx's time, " and largely as the result of his influence, historians have paid increasing attention to the working of the economic factor in history, but economists have also paid increasing attention to the working of the historical factor in economics " (p. 30). There is, however, one passage in this chapter to which exception must be taken. Surely it is not correct to say that " the English school assume that men are incapable of thinking of anything but their own interests " (p. 29). Some of the writers of the English school no doubt were considering how men would be likely to act when thinking of their own interests, but that is quite another thing. In this chapter the author has a good deal of importance to say about the class struggle and its meaning, and there is really no ground for the alarm that has been expressed by the *Morning Post* at the Master of Balliol giving vent to the statement that " Marx's doctrine of the class war is not, when properly understood, incompatible with idealism " (p. 47). If the *Morning Post* writer had read the chapter a little more carefully, he would have seen that the author says the doctrine of class warfare may be interpreted in such a way as to become immoral and stupid (p. 46). And if this had not satisfied him, the following sentence should have allayed all his fears : " It (the class struggle) is fundamentally the Conservative doctrine of the importance of the smaller patriotisms " (p. 45).

It is, however, the two remaining chapters, on the Labour

Theory of Value and on Surplus Value, which will be of the greatest interest to readers of the JOURNAL.

It is very difficult to be at all certain what Mr. Lindsay's position is as to these two theories. To begin with, it is by no means clear whether he regards Marx's labour theory of value as an account of what is or what ought to be, and the difficulty is added to by a passage on p. 66 in which he suggests that Marx uses the theory for both purposes. Now if the theory is intended to be an account of the way in which value is determined under the present economic system, it is obviously absurd. If, on the other hand, it is intended to be a statement of an ideal as to how value ought to be determined in a more perfect state of society, and if the contradictions which appear in the second and third volumes are introduced, where it is admitted that other factors besides labour contribute to value, it comes nearer to an account of the way in which value is actually determined under the present system. In that case, why is the theory so beloved of Marxians? If it both describes what is and explains what ought to be, it is hard to see what it means.

It is often said that Marx's labour theory of value is the theory held by the earlier classical economists developed to its logical consequences, and Mr. Lindsay appears to accept this view, for he writes of " the labour theory of value which is held in common by the individualists and by Marx " (p. 57). It is true that Adam Smith, Ricardo and McCulloch, for example, made statements in regard to the part played by labour in determining value which are very closely in line with those made by Marx, but it is not true to say that they held a labour theory of value in common with him. In fact, it is hardly true to say that the classical economists had a labour theory of value at all. Like Marx, they neglected to analyse demand, but unlike him they laid the emphasis not on labour, but on cost of production, in which many elements are included besides labour. Ricardo even seems to include profits under cost of production. " Cost of Production the Grand Regulating Principle of Exchangeable Value and Price " is the first heading of Part II, chap. ii of McCulloch's *Principles of Political Economy*.

The following statement contains a more serious misrepresentation of the views of the " individualist economists." " The labour theory of value . . . is twisted and turned to justify the subsistence level of wages " (p. 86). The writings of the earlier economists contain numerous passages pointing out the advantages of high wages, and I quote the following as examples :

"The friends of humanity cannot but wish that in all countries the labouring classes should have a taste for comforts and enjoyments, and that they should be stimulated by all legal means in their exertions to procure them" (Ricardo's *Principles of Political Economy*, chap. v); "The example of such individuals, or bodies of individuals, as submit quietly to have their wages reduced, and who are content if they get only mere necessaries, should never be held up for public imitation. On the contrary, everything should be done to make such apathy be esteemed discreditable. The best interests of society require that the rate of wages should be kept at a high elevation" (McCulloch's *Principles of Political Economy*, Part III, chap. ii, sec. 2).

Mr. Lindsay is fully alive to the fundamental weaknesses of Marx's labour theory of value. He recognises that it disregards monopoly and neglects demand. He points out numerous contradictions in Marx's statements, and knows that in his second and third volumes Marx practically threw over all that was vital to the theory. He credits Marx with the discovery that value is a social product, but thinks this inconsistent with his theory of value. He attaches a good deal of importance to Marx's distinction between labour and labour power, though it is not quite clear why he thinks this gives any support to the Marxian theory of value. In spite of all this, he regards the theory as essential to Marx's teaching. To those who did not know that Marx's *Capital* contains some valuable contributions to knowledge, it might appear that teaching based on such a flimsy foundation could not be worth very much.

The author's treatment of surplus value is hardly more satisfactory. In the chapter on the labour theory of value Mr. Lindsay says that "Marx's theory of surplus value can certainly be stated in a form which is independent of the general theory of value, if that is regarded as an account of how prices are actually determined, that as so stated it has a truth and importance of its own" (p. 57). But can the theory of surplus value be treated as independent of the general theory of value? In his first volume Marx certainly bases it entirely on his theory of value. But according to Mr. Lindsay, Marx's real view as stated in the third volume "is that 'in the determination of value the question turns around social labour time in general, about the quantity of labour which society in general has at its disposal, and the relative absorption of which by the various products determines, as it were, their respective social weights.' In the light of this he makes the statement, which on the usual inter-

pretation of Marx would be astonishing, that 'it is not wage labour which determines value,' or, 'so far as labour has the specifically social character of wage labour, it does not create any value'" (p. 72). But which of these is Marx's real view? Both are quite explicitly stated.

Marx undoubtedly made a great contribution to Socialist thought. He was a great propagandist, and was filled with a burning sense of the cruelties and injustices of capitalism. He is probably the first writer who obtained a wide hearing for the view that capitalism necessarily involves the exploitation of labour, and he showed clearly that the workers, owing to lack of anything like equality of opportunity, were not in a position to make fair bargains in industry. He also undoubtedly pointed the way to a better state of society, and his writings have inspired numbers of men and women to work unselfishly for fine ideals. But when all this is granted, it can hardly be doubted that Socialism might have taken a more constructive form and perhaps met with less opposition than it has but for the belief held by many Socialists that the Marxian theory of value and surplus value are essentials of Socialist theory. The progress of any movement must be checked which uses such faulty weapons for its defence.

Mr. Lindsay has made a most careful study of Marx; he appears to have read the three volumes of *Capital* in German, an achievement I should think very rarely accomplished by English students, and his book contains much subtle criticism. He has probably said all that can be said for Marx's theory of value and surplus value. Some of his readers will no doubt be strengthened in their opinion that these theories should be retained; others will not be shaken in their belief that they should be discarded.

H. SANDERSON FURNISS

Free Thought in the Social Sciences. By J. A. HOBSON. (London: Allen and Unwin. Pp. 288. 10*s*. 6*d*. net.)

THE underlying theme of Mr. Hobson's book is the now familiar one that most people believe what they want to believe, and then invent reasons for believing it. His particular thesis is that in the Social Sciences, owing to the flabbiness of the material dealt with, the looseness of much of the terminology used, and above all to the close bearing of their subject-matter on the instincts of individuals to acquire and retain wealth and power, the operation of this principle is especially important

and especially dangerous. In this field, according to Mr. Hobson, that impulse of "idle curiosity," which when organised and directed becomes "disinterested science," has to wage against the subtle pressure of interested desires a warfare so fierce and so continuous that we might well despair of the issue, were it not for the fortunate fact that in the long run truth is more agreeable to the human mind than falsehood, and for the aid which modern Psychology can give to Reason's deep-seated powers of resistance and recuperation.

It need hardly be said that Mr. Hobson displays eloquence and acuteness in the development of this congenial theme. Only a curmudgeonly reader will grudge him his merriment over the Economic Man of the Ricardians or the Nordic Man of modern American anthropologists: only one hardened in self-righteousness will refuse to try on some at least of the proffered caps. Here are two of Mr. Hobson's missiles—one might almost say boomerangs—which it is an æsthetic pleasure to watch as they whizz towards their predestined targets. "'Idle curiosity,' or a genuinely scientific activity, may lead a man to the discovery of some new fact or law which seems to him to have great importance. The interest of possession then comes into play. This fact, or law, or theory, becomes his peculiar property. . . . When one of our prized intellectual possessions is attacked or threatened, there is an instinctive rally of our emotion of self-esteem to its defence." "The innocence of many social teachers and students is both amusing and pathetic. . . . There exists a secret envy, an instinctive worship of the sterile thinker for the fruitful doer, a testimony to a baulked instinct for self-assertion."

Yet salutary as is Mr. Hobson's text and vigorous his exposition, it is impossible not to feel that, like some of the psycho analysts to whose art he makes such frequent appeal, he has allowed himself to become obsessed by one aspect of the truth. Is there *no* good thing in man, we are tempted to ask at the end of this book, except this one impulse of "idle curiosity" or the scientific spirit? Do people never do *anything* from even partially decent motives? To take two specific instances, is there *nothing* but humbug in the claim of the British to have rendered service to the peoples of India (p. 195), and in the acceptance by enlightened capitalists of the conception of property as a moral trust (p. 241)? At the risk of being derided as an "innocent social teacher," I venture to record the opinion that Mr. Hobson has constructed for himself an over-simplified world, peopled by puppets at least as unreal as the Ricardian economic man.

But even granted that the scientific spirit is the single hope of mankind, Mr. Hobson gives us little help in discriminating between its genuine utterances and the disguised voice of self-interest. Sometimes it almost seems that every scientific judgment which can possibly be used in support of any material interest whatever must be automatically rejected as a disingenuous imposture. Thus the Malthusian doctrine of population was pressed into the service of the rich; *therefore* it must be held to have been invented out of a desire to disbelieve, and not (as Malthus himself assures us) in spite of a desire to believe, in the possibility of indefinite progress. Thus again Professor Cassel's apparently sober judgment that " A more democratic distribution would materially lower the degree of saving of the community " is to be brushed aside without argument as a manifest illustration of the " power of the dominant economic class to deflect a social science from its straightly rational course into supplying intellectual and moral supports for special group interests." It is not surprising that in this region of his argument Mr. Hobson should come to the melancholy conclusion, to which, however, he apparently has not the heart to adhere, that a disinterested science of economics is impossible.

It was not indeed to be expected that at this time of day the " classical economists " should meet with mercy, or even justice, at Mr. Hobson's hands. It is not surprising to find him quoting Ricardo's famous aspiration, " that in all countries the labouring classes should have a taste for comforts and enjoyments," and the same author's forecast of a decline in the level of profits, only to explain that such " obiter dicta " are of no significance. But the accusation that the economists first invented the law of rent to spite the landlords in the interest of the capitalists, and then invented the doctrine that " rent does not enter into the cost of production " in order to draw off odium from those capitalists who had by now *become* landlords, is, I think, a new and surely a most masterly achievement of perverted ingenuity.

It is in his treatment of what he calls " neo-classical economics " that Mr. Hobson's surrender to the spirit of captiousness, his determination to see the hidden hand of vested interests behind every proposition with which he disagrees and every intellectual instrument of which he cannot understand the use, gives rise to a legitimate sense of disappointment. His judgment on the author of the doctrine of consumers' surplus I reproduce without comment. " Nowhere do we find in [Marshall's] work any attempt to express economic income in human

welfare. Doubtless the sense that human well-being is the end of economic activities may be said to pervade his work. But it is never formulated." As for Professor Pigou, one of his chief crimes is the attempt to delimit, even roughly and loosely, economic from non-economic welfare, and to deal with the former as quantitative and measurable. Such a procedure is held to involve, among other things, a false assumption of "identity of personal needs and valuations" which "invalidates all purely quantitative valuations of subjective welfare." Yet Mr. Hobson himself, when he tries to substitute "an organic treatment for the separatist hedonist calculus hitherto employed," calmly announces that "the admittedly common character of mankind will suffer [? suffice] to furnish some very serviceable rules for . . . the *enlargement* [my italics] of economic welfare" —a working hypothesis which seems to be practically indistinguishable from that adopted by the "orthodox" school.

If Professor Pigou shows the cloven hoof by maintaining that, within certain well-understood limits, money prices may be taken to represent commensurable satisfactions, Mr. Henderson shows it by maintaining that money costs of production can *not* be taken to represent commensurable sacrifices. I think myself that Mr. Henderson goes too far in his reaction against the Marshallian dyarchy of utilities and costs; but I should have expected Mr. Hobson to acclaim his apostasy as a sign of grace, and to welcome the emphasis which he lays upon the truth that (for instance) £100 received as the wage of a year's unskilled labour cannot be taken to represent the same disutility as £100 received for abstaining for a year from dissipating an inherited fortune of £2000. But no! Mr. Henderson is tainted with "the pseudo-exactitude of the mathematical 'marginalism' which wins for the Cambridge school the title of defenders of the capitalist faith," and he must suffer accordingly.

The menace of "Marginalism" is accorded a whole chapter to itself. It is not easy to discover the grounds of Mr. Hobson's violent antipathy to the use of this particular engine of economic thought. It ignores, he seems to hold, the "organic structure" of the entrepreneur's scheme of production and the housewife's budget. Yet he admits that "a person adjusting the use of his resources to the demands of a new situation makes a number of delicate adjustments at the margins." Precisely; but every situation was new once, and the most "organic" budget is surely that which is based most firmly on the results of past experiment. Mr. Hobson's attempt to weaken the force of his

own admission by adding that "the determinate judgments, of which these delicate adjustments are expressions, are made, not at the margins, but at the centre," seems to mean just nothing at all.

But to prolong here the debate on this and other technical matters would be to divert attention from the main issue. The point is not whether Mr. Hobson or the "neo-classical economists" are right on this matter or that, but whether he is justified in setting out his differences with them as an instance of the perennial conflict between disinterested science and the powers of darkness. Even if one thinks Mr. Hobson muddled about margins and the meaning of the law of diminishing returns, one would wish to write about him respectfully and indeed cordially as of a fellow-searcher after truth and a veteran worker for worthy causes. But he has written so peevish and unneighbourly a book that it is not easy to do so.

D. H. ROBERTSON

The Economics of Fatigue and Unrest. By P. SARGANT FLORENCE. (London: George Allen & Unwin. 1925. Pp. 426. 16*s*. net.)

DR. SARGANT FLORENCE'S long-awaited analysis of industrial fatigue is one of the most important contributions to practical economics which has yet appeared in the English language. It is the outcome of a variety of favourable circumstances and an equally varied training, and the exposition has benefited by his considerable experience as a teacher at Cambridge. In addition to numerous personal investigations conducted in Great Britain and America, this compact study summarises the results of half a century of industrial research, ergographic, psychological and statistical; and the whole is set in an adequate historical perspective with a judicious account of its bearing on the racial future.

Not that all this reveals itself readily to the inattentive reader, for negative conclusions as to the value of a given method, which may have been reached after months of laborious experiment in factories, are often shown only by the final selection of paths through the bewildering mass of detail with which any exhaustive study in this field is called upon to deal.

We have had many semi-popular volumes on fatigue and its allied problems during the past few years, but most authorities have cut out argument and detailed statistical demonstration and have contented themselves largely with the enunciation of

general truths. Theory and practice are here for the first time brought into effective relation, and it is shown how conditions affecting fatigue have developed since the industrial revolution. Dr. Florence gives us the statistical material, and is not afraid of novelty. It is new to look at unrest as a cognate problem to that of fatigue, and to study both scientifically; and it is even somewhat new to distinguish objective statistical measurements and conclusions from the supposition of corresponding psycho-physiological states of fatigue, unrest, monotony, etc.

To particularise: The first novelty in method is the historico-economic approach. The book is rightly entitled *Economics* (see definition, p. 128), for the author is both alive to current economic problems and draws attention wherever possible to objective economic mensurabilia rather than vague psychological components of the work-curve. The treatment of the Trade Cycle and the realisation that this must make a difference to efficiency is important in view of Professor Wesley Mitchell's idea that the slump phase of the cycle may be brought on by increasing labour costs (cf. p. 148 and Table 7, also pp. 177–8). There is an excellent analysis of the effect of money wages on labour and efficiency, and of methods of wage payment, of the advantage of piece rates measured accurately (pp. 253–4), of output and the economy of high wages (pp. 261–3), and an exceptionally useful discussion of poverty in relation to the death-rate (pp. 306–11). An attempt is made for the first time, in Chapters VI to XI, in the case of each loss to assess cost by cost accounting (see especially the general analysis in Chapter V and Tables 3 and 4, pp. 131 and 134).

As regards the distinction between subjective and objective considerations, Dr. Florence boldly grapples with the verbal difficulties involved, and discards "fatigue" in the main section of the book (p. 102) as a question-begging term. His attitude is almost behaviouristic in this respect. Broadly speaking fatigue refers to a relative incapacity to work, unrest to a relative unwillingness to work; and these are simply two points in a variety of possible psycho-physiological states of the human factor that may affect behaviour and may be affected by external conditions. These conditions in so far as they bear upon fatigue are classified on p. 26 of Dr. Florence's *Use of Factory Statistics* (Columbia Studies), previously reviewed by the present writer in this JOURNAL.

The primary object of the present work is to correlate such variable objective factors as degrees of temperature, hours of

work, amounts of wages, with variable objective economic losses, percentages of labour turnover, rates of accident, proportions of spoiled work and so forth. Varieties of conditions and losses are many in number, so that the possible correlations are multitudinous and nearly all are worth practical consideration. Most of those distinguished by Dr. Florence can be varied at the will of employer and some at the will of Trade Unions, Government departments, etc. And he estimates in the case of each type of inefficiency (Sections C of Chapters VI–XI) what is the minimum unavoidable, and what the margin of cost that is reducible by variation and adjustment in conditions. This analysis is often difficult, but is constantly the crux of the would-be reformer's problem. At present few employers, even if they took the trouble to record and average their lost time or their turnover, would know, when the results appeared, whether to consider their loss as excessive. It is only the excessive loss that they can economically prevent, and this gives the inquiry into the causes of such loss (considered in Sections D of Chapters VI–XI) a very practical turn. This is enhanced by the calculation of the costs of cure and repair as against prevention (pp. 129–31) and by the presentation of definite forms (Chapters XIII–XIV) for entering details.

Passing to novelties of matter, we may note the pages concerned with individual variation in output with a view to establishing the representative nature of the work-curve, and the sections devoted to restriction of output, success of psychological selection (pp. 221–4), rhythm and its accurate measurement (pp. 244–7), and to labour turnover (Chapter VI)—which is the only summary available in England. There is a clear distinction between ill-health and accident as causes of lost time (cf. p. 331, and especially Table 36). A separate chapter is devoted to Defective Output (IX) and the important loss due to spoiled work and poorness of quality. Strikes find their place under Lost Time (pp. 179–211).

In general, it is characteristic of the work that it avoids controversial digressions wherever possible. We do, however, find a difference of opinion from other authorities stressed at certain points. Thus Dr. Vernon's conclusions as regards the relation of fatigue and accidents are challenged on p. 293, and the work of Vernon and Muscio is on several occasions handled with asperity. We note, too, some strictures on the official recommendation of the Investigator to the Health of Munition Workers' Committee (pp. 119–20).

Dr. Florence's views, especially those in his *British Association Report, No.* 2, have already attracted considerable attention in Germany; he is, however, modest in the use made of his own work, though full references are given to the British Association Reports and to the excellent *U.S. Public Health Bulletin, No.* 106. It may be noted here that the "Eight-Hour Plant" which plays so large a part in the statistics is none other than Ford's Detroit Works. But perhaps this is a Government secret!

For a second edition the following *errata* may be noted: p. 206, sixth line of paragraph 2, "avoidable" should be "unavoidable"; p. 221, *Weltwirtschaftliches Archiv* is the proper title of the journal quoted; p. 96, line 11, "soil" should be plural; and on the last line of p. 248 a misplaced comma destroys the sense. On this same page the author quotes Huntingdon's conclusion that in America the output of factories varies with the weather and Vernon's figures for a fall in output with a rise in temperature in England. His only other reference to climate is on p. 313, which concerns the defective power of the sun's rays in Warrington. The reviewer happens to be revising the proofs of the above in a respectable middle-class restaurant on a normal week-day in New York, the equivalent, it would appear, of a Lyons in, say, Earl's Court Road. London, apart from a few dreary roisterers in an area of a few square acres, would have been a city of the dead for nearly two hours. It is an hour and a half after midnight, and the restaurant is full, full of ordinary cheerful persons of all ages of both sexes. The leading morning papers have been on sale for over an hour, and they declare that Sir Jagadis Bose is researching on fatigue in plants and in metals. Other restaurants and many shops round about are busy, and so clearly are a number of night-clubs and dance-halls within earshot. The streets are everywhere as crowded with taxis as Sloane Square at midday. For three miles northward towards the amusement area of central Broadway stretches an unbroken line of traffic and restaurants with a crescendo of brighter lights and gayer throngs. No one shows signs of weariness, yet eighty per cent., including the writer, will be about again before 9 a.m.; and were so yesterday. In this era of international statistics Dr. Florence might well have included a more extended study of the influence of climate on fatigue.

C. K. OGDEN

Germany's Industrial Revival. By Sir Philip Dawson, M.P., M.Inst.C.E. (London: Williams & Norgate. 1926. Pp. x + 276. Price 10*s.* 6*d.* net.)

The title of this book prepares the reader for the conclusion to which the author has been led by his careful investigations. For the book is written with knowledge of the facts, since Sir Philip Dawson, not satisfied with rehashing the opinions of other people, as the manner of some writers on his subject is, has gone to the fountain head for his information. He tells us that he repeatedly visited Germany, from 1919 forward, as a member of the Disposals Board, but the special inquiries of which the results are here given were made as the leader and inspirer of the industrial group in the House of Commons which was formed in 1922 with the object of watching German industrial developments, in view of their inevitable reactions upon our own economic position and future. Ready help appears to have been given to Sir Philip and his companion, for he speaks of the conferences held, in each town visited, with representative men in the worlds of finance, industry, and commerce, as well as with trade union leaders, influential politicians, and responsible Government officials, all of whom met the envoys in a frank and friendly manner, and even welcomed the utmost scrutiny.

Much of the book is concerned with the causes and results of inflation, and now that German currency is again stabilised, and the worst of the transition is over, the historical interest of the chapters on that subject is perhaps greater than their present practical value. Many readers, however, will disagree with the author's too easy conclusion that inflation was nothing more than a dodge for evading the financial penalties of defeat in the War. He commits himself to the categorical statement, as one of fact, that "those responsible for the economic policy of the country following upon the Treaty of Versailles adopted a deliberate plan whose aim was the destruction of German credit through the inflation of the currency . . . in order to secure discharge from their war obligations." Personally I do not accept this view, and I have often said so. If inflation was only a dodge it was a very unintelligent dodge, and to assume that it was so intended is to attribute to Germany's leading financiers a simplicity and naïveté which would be out of place anywhere except in the nursery. The whole question of inflation was egregiously bungled, but there were extenuating circumstances, and one of the most important of these was the increasing difficulty of raising revenue,

seeing that during the War the country was thrown entirely upon its own resources and that the Central Executive shared its taxing powers with over a score States and hundreds of local government authorities, all of which had a pull on the income tax. I spent some weeks in investigatory work in Germany at a time when the mark stood at about 200 to the pound, and so little did any idea of conspiracy against the country's credit then exist in financial circles, that one of the best known of Berlin bankers, in conversation with me, lifted up his hands in horror at the suggestion of a further decline, declaring, " If the mark should get to 500 the country will be irretrievably ruined." When the financial question was seriously taken in hand the mark was already so far on the down grade that it was too late to stay its accelerating course to perdition.

About the disastrous effects of inflation there can be no doubt whatever, yet the best answer to the author's suggestion that the country was to have been impoverished by this expedient with a view to evading reparations, is contained in his own admission that " Germany's real wealth has neither been increased by the inflation nor has it been diminished. It has merely been redistributed." Again : " National and local debts shrank to nothing, while the value of the material assets of the State, such as State railways, forests, salt-works, mines, and so on, stayed unaltered." In other words, what individual creditors lost the community as a whole gained, by acquiring great values for next to nothing by the grace of the printing press. Inflation, in the end, has rather assisted Germany to meet her war liabilities than the reverse. A Treasury already loaded with thousands of millions of debt could not have faced even the scaled-down annuities of the Dawes scheme.

What is inexplicable and unspeakably shabby is the refusal of the Governments and public authorities, at least, to honour their old debts to citizens who had already made supreme financial sacrifices for their country in the time of need. That, however, is a question not of economics, but of morality and mentality. One reads in these pages with a certain feeling of nausea how the Bochum Municipal Authority, which in 1917 raised a loan in Swiss francs, had the audacity to send a German bank-note for ten milliard worthless paper marks in repayment—no, not exactly worthless, for the note had a value of one-tenth of a penny!

Nor is it possible to accept without reservation the author's statement that " it was inflation which brought about the fatal degree of under-production," if by this he means the fall of the

national productivity to 60 per cent. of the pre-war output. (It is now estimated at 70 per cent.) What the author fails to allow for is the influence of that physical and psychical reaction which after the War in every country had the self-same result which in Germany he attributes to inflation alone, and the fact that the hours of labour had been reduced by legislation. Here and there he appears to contradict himself on this question. For example, while in one place he tells us that with inflation and high paper-mark wages the German workers insisted upon "a high standard of life, shorter hours, and less exertion," he says later that they were only too glad to welcome stabilisation of any kind, because they were "at the last stage of desperation owing to want."

What most readers who take up this book will be specially interested to know is how Germany is shaping to-day, and whether she will be able to pull through her difficulties and bear the "load Atlantëan" which her victors have imposed on her. The author discusses impartially the pros and cons of the question, weighing judicially advantages against handicaps, and he comes to the conclusion that "owing to the greatness of her physical and human resources, Germany will fast re-establish her old preponderancy." The facts which are held to justify this conclusion —and which, in my opinion, do justify it—are quite as much moral as material. Such moral factors are "the inborn abilities of the race," the remarkable way in which employers and employed on the whole are pulling together, and the general recognition of the fact that a poor nation must learn to live frugally, and to husband its resources. He pays a high tribute to the sagacity and moderation of the working classes, of whom he says that they "are undoubtedly preparing to shoulder indefinitely lengthened hours of work, low wages, and deprivation of all luxuries." The industrial outlook generally is summarised in these words:

"Germany is one in the determination to 'make good.' Long hours are being cheerfully worked by all ranks; low wages are being accepted on the one hand, small or no profits on the other. Employers are ready to raise wages when the state of industry permits it. All to-day in Germany know . . . that increased production and meantime a generally low standard of living, with superhuman sacrifice on the part of every member of the Fatherland, is absolutely necessary to the continued existence of that Fatherland. It is in this spirit that confidence is justifying itself. Germany has decided to face facts, cut losses, and start again from the bottom of the ladder."

Some of these statements may err on the side of over-generalisation, but on the whole the picture presented of a nation bent on recovering its lost position is accurate, and the prospect has a momentous political as well as economic significance. In the meantime Germany's great wants are more receptive markets and more capital. The restriction of European markets in particular is one of the results of the intensified nationalism which we owe to the peace treaties, and other industrial countries besides Germany are suffering from the same evil. From the shortness of capital Germany will suffer until not only her own wealth but that of the whole world has been renewed. America has made her large loans, of course at good interest, and this country, with less money to spare, has done its bit in the same direction, but until German credit is firmly rehabilitated, foreign borrowing will continue to be a difficult as well as a costly business.

The author has no doubt whatever that Germany has every wish and intention to fulfil her liabilities, but he frankly faces the consequences for her industrial competitors. "The position created industrially," he says, "is that if Germany is to pay reparations, she must be enabled to become a serious competitor in the world's markets. If she pays reparations in money, she must be allowed to flood the world with cheap goods to make it; if she pays it in kind where, in an over-stocked market, will the industrials, her creditors, find outlet?" Bearing this prospect in mind, a further statement seems to carry a sinister implication, whether intended or not. Speaking of the pre-war period, he says: "The rapidity with which the German Empire has been created and the hot-house growth of industrialism inevitably led either to world domination by Germany or to war." I regard this view as entirely fallacious, if for the only reason that the idea of world "domination" never entered a rational mind in Germany. World power, in the sense of influence on world developments, such as our own country has exercised for generations, Germany did want, had a right to claim, and may claim still; but that is a very different thing. If, on the other hand, the author implies that an intensive policy of industrialism must involve war in the end, what a ghastly blunder it was to impose on a beaten adversary money penalties so heavy that by universal admission they can only be paid by the production of commodities on a prodigious scale and flooding the markets of the world with them! My own view is that the next war—inevitable unless the world speedily produces a statesmanship wiser, less egoistic, broader-minded, more forward-looking than any we have known in the

past—will be waged over the present unequal partition of the unfilled and undeveloped territories of the earth. There is the great peril of the future, and no far future either.

Enough has been said to show that Sir Philip Dawson's book is both instructive and thought-provoking. Without being the work of a specialist in economic investigation, and while not forming so complete a unity as a more practised writer might have made it, it is the production of an observant and conscientious investigator, and it will be found a mine of information of the utmost interest and value at the present time.

W. H. DAWSON

Kleinere Abhandlungen über Kapital und Zins. Being the second volume of the Miscellaneous Writings of Prof. E. von Böhm-Bawerk. (Vienna and Leipzig: Hölder-Pichler-Tempsky A. G. 1926. Pp. 585.)

THE first volume of the Miscellaneous Writings was reviewed in this JOURNAL a little over a year ago (March 1925, p. 124). It included topics of general concern to economists, but excluded those with which the author is specially identified, Capital and Interest. The various minor writings on the latter subjects will be found in the present volume. Not a few were first published in English, and are given now in their original German. An early French article, " Une Nouvelle Théorie sur le Capital " (*Revue de l'économie politique*, Avril 1889, pp. 97–124) might perhaps have deserved republication. But there can be little left now in obscurity except the smaller reviews, where the subject was not treated at large.

Many old friends reappear. We have—(1) the two articles, (*a*) Capital, 1910, (*b*) Interest, 1911, from the *Handwörterbuch der Staatswissenschaften*, third ed. (2) Replies to American critics, (*a*) from the *Quarterly Journal* (Harvard), 1895; (*b*) (three papers), Annals of Amer. Acad., 1901, on Saving, and (*c*) the longer reply to continental critics, originally three articles in the *Zeitschrift für Volkswirtschaft*, Vol. VIII., 1899, then in book form, January 1900, under the title *Einige Strittige Fragen der Kapitalstheorie* (see ECONOMIC JOURNAL, 1900, June, p. 211). Parts of this last book have been already used in the " Excursus " of the *Positive Theory of Capital*, but could not have been denied a place here without injury to the argument. The last group (3) of articles here includes (*a*) Karl Marx and the Close of his System, 1896, the translation of which by Mrs. Murray Macdonald (1898) was reviewed in this JOURNAL by Miss Butlin, September 1898,

p. 375. (*b*) A criticism of J. B. Clark, from the *Quarterly Journal* (Harvard), 1906, and *Zeitschrift für Volkswirtsch.*, 1907, also in book form, 1907. (*c*) A criticism of Schumpeter's Dynamic Theory of Interest, from the same *Zeitschrift*, 1913.

To review such a collection *de novo* would be a thankless task, and it would be impertinent to praise an author so well known for his skill in economic reasoning, and his unfailing faithfulness in detail when the subject admits thereof. On this latter head an instance may be given of coincidence between two masters of theory, both recently gone from us. Böhm writes (pp. 227–8, *Strittige Fragen*), that we may be asked how we can venture to use exact figures in dealing with interest and "long periods" in face of the fact that no exact figures are statistically procurable about them. Can that be the means of exact explanation which cannot itself be exactly measured? Even marginal utility (it is said) relates to "quantities" of pleasure and pain, impossible to measure and always varying. But (he answers) many physical forces (like the lightning) are not even now measurable with exactness, and yet produce effects on which calculation may proceed, as, in the days before thermometers, blacksmiths could distinguish greater or less warmth and the several effects on their metal with a view to softening or hardening. So Edgeworth (quoted from "Math. Psychics," ECONOMIC JOURNAL, March 1926): "We cannot *count* the golden sands of life; we cannot *number* the 'innumerable' smiles of seas of love; but we seem to be capable of observing that there is here a *greater*, there a *less* multitude of pleasure-units, masses of happiness, and that is enough."

We may challenge the psychology, but accept the logic, of these two great men.

J. BONAR

The Secret of High Wages. By BERTRAM AUSTIN, M.B.E., M.A., and W. FRANCIS LLOYD, M.A., A.M.I.E.E. (T. Fisher Unwin, Ltd. 3*s*. 6*d*. net.)

A FEW weeks ago I attended a conference of business men (and women) called to discuss certain problems of modern industry. The conference meets at regular intervals, but I understand that on this occasion the attendance was twice as large as on any previous occasion, and that the increase in numbers was due to the fact that Messrs. Austin and Lloyd had been advertised to speak. Everyone appeared eager to hear more about

their "secret." It is by no means easy to account for the attention which their book has attracted. The authors were in the United States of America during the last quarter of 1925, examining "American manufacturing industry during a period of unprecedented prosperity." They visited twenty-four establishments in Eastern America and interviewed many "leaders in American life." Like the ex-President of the Federation of British Industries, who had been on a similar mission a few months earlier, they were evidently impressed by what they saw and heard, and one feels that those whom they met were fairly satisfied with their lot. But there is evidently another side to American industrial life. While the authors were in America, or shortly afterwards, the English newspapers published a report of a conference of New England manufacturers which had been summoned to examine the causes of the apparent decline in the industries of that region. We read of the conservatism of business men, the lack of enterprise among the "third generation," and the inefficiency of labour: in short, it might have been an old England Conference! Moreover, the index of employment published by the Bureau of Labour Statistics suggests that, contrary to the impression conveyed by Messrs. Austin and Lloyd and other observers, the year 1924 was by no means prosperous. If the monthly average of employment for 1923 be represented by 100, the index, which for the first half of 1920 varied between 115 and 118, fell to 87 for July and August of 1924 and remained below 90 for the rest of that year. (See *Stabilisation of Employment*, by J. R. Bellerby, I.L.O., Geneva). Again, I am informed by natives of New York that the labour restrictions in the building trades of that city are far more vexatious than any yet devised by our unimaginative workers. Real wages in New York during that year showed, it is true, an advance of 23 per cent. upon the standard of 1913—which is no mean achievement—but even in London there was an advance of 11 per cent., while the workers of Brussels and Copenhagen enjoyed an advance of 35 per cent. (Report of the Committee on Industry and Trade, Vol. II. p. 104.) Denmark seems to be worth a visit.

It is to be regretted that, before setting out on their quest, the authors did not examine the material already available in this country dealing with American industrial conditions. What they apparently did was to run very rapidly through a number of factories (mainly light engineering) which had already adopted "Ford" methods, and to generalise from such cases, the generalisations being identical with those precepts which are to be found

in Mr. Ford's autobiography. Their book deals not with the secret of high wages but with the secret of a high standard of living. And the secret is efficiency or high productivity. As a study in descriptive economics the book is not of much value. Statistics are carelessly flung together. The authors do not seem to be conscious of the ultimate assumptions of their sweeping generalisations. They fail to distinguish between rates of wages and weekly earnings; between real and nominal wages, and between particular wages and the general wage level.

But Messrs. Austin and Lloyd scored a journalistic triumph by preaching a simple gospel with the fervour of missionaries. They were themselves amazed by what they had seen, and returned home convinced that they had discovered the means of salvation for British industry. The British public, depressed by long-continued adversity and somewhat mystified by the apparent prosperity of America, were ready to listen to anyone who could direct them upon the road to industrial recovery. The authors told them that they would see nine signposts which would lead to Efficiency, and that immediately behind Efficiency lay Recovery. The first was promotion by merit, the last was research. And the public turned away, disappointed and sad, for they saw that the missionaries had preached the gospel of work, and intelligent work; and many knew that they, at any rate, had already followed those signposts and reached Efficiency only to find that Recovery, which, from the starting-point, seemed to lie immediately behind Efficiency, was in reality many miles farther on and separated from it by a wide sea which they could not cross. The standard of living depends upon efficiency, but not the volume of employment. The assumption that the latter depends upon efficiency is the fundamental error of the book; it is due to failure to distinguish between absolute efficiency and changes in efficiency, and in the relative efficiencies of different communities and of different parts of the same community.

Nevertheless the authors have deserved their success. They have compelled many business men to read, for the first time, some of the elementary facts upon which economic science is based. No economist who has lived in an industrial area and investigated industrial conditions can have failed to observe how little business men know of the sources of information relating to their own problems. I hasten to add that business men have been equally struck by the evidence shown by economists of lack of knowledge of the way in which a business is actually conducted. Messrs. Austin and Lloyd have done something, perhaps more than we

yet know, to bridge the gap between the economist and the business man. It is not what they say but the way in which they say it that is interesting and (to the extent that it is true) valuable.

J. H. JONES

The Amalgamation Movement in English Banking. By JOSEPH SYKES. (London: P. S. King & Son. 1926. Pp. xi + 231.)

THE systematic literature upon British banking in the nineteenth century is deplorably inadequate. The later (but not up-to-date) editions of Gilbart, Macleod's now quite antiquated researches, Andréadès on the Bank, Palgrave on the Money Market, Powell's heroically conceived but not quite successful history (now, incidentally, out of print), are practically all that we possess. No parliamentary inquiry has taken place since 1875: the Committee on Bank Amalgamations and the other post-war reports have not published their evidence. In fact, the most recent utterances of British bankers recorded in a public document are those incorporated in the volumes of the U.S.A. Monetary Conference. Such a state of affairs is a reproach to British scholarship. Mr. Sykes' book goes some way towards filling one gap. It represents the first systematic attempt at surveying the forces which in the short space of a century have eliminated the private banker and all but brought us in sight of a complete banking monopoly.

The results of the survey are most interesting. Mr. Sykes shows that the total number of amalgamations between 1826 and 1924 was 552, divided among the sub-periods he has adopted as follows:

1826–43	122
1844–61	44
1862–89	138
1890–1902.	153
1903–24	95

The check in the period after the Bank Act of '44 is no doubt due, as the author asserts, to the immediate effects of that Act, which prevented "the growing joint-stock banks from acquiring, through amalgamation, excess issues." At the same time it is important to point out that by preventing the establishment of further note-issuing banks, the ultimate effect of the Act was probably very different: it paved the way for uniform joint-stock bank legislation, and thus made fusion easier. Incidentally, Mr. Sykes is in error in stating that the Act of 1833 "permitted the formation of joint-stock banks within sixty-five miles of

London." The Act of 1833 neither gave the London joint-stock banks the protection afforded to country joint-stock banks by the Act of 1826, nor altered the substantive state of the law: section 3 of the Bank Charter Act of 1833, to which the author presumably refers, being a declaratory section solely, and inserted expressly in order that "all such doubts" as to the state of the law "should be removed."

In general, the causes assigned by Mr. Sykes for the amalgamations are without doubt correct, but on this side of the subject there is little new that can be said; though the illustrative material which Mr. Sykes brings in support will be useful to students.

About one-half of the book is occupied with an examination of the effects of amalgamation. For the greater part the analysis follows familiar lines: everyone will agree that the smooth working of the discount market, and the position of the Bank of England, are not on the whole made easier by the reduction in the number of banks, and that amalgamations raise a series of internal problems, such as the adequate training of the staffs, which can hardly be considered to be solved. But the chapters in which Mr Sykes deals with the more directly pecuniary effects of amalgamations are much more contentious in character. The argument is that amalgamation was a great cause of the swift and expansive creation of branches, and that therefore the process has resulted in increased and not decreased expenditure, for the main expenses of banks, apart from interest, are "Salaries, Rent, Rates, Taxes and Telephone Charges," and these mount as the network of branches extends.

There are really involved two quite distinct points. The rise in the expenses ratio may be due to the policy of opening branches. It is another thing to argue that amalgamation was more responsible for branch banking than other features of the banking situation in this country. Mr. Sykes' argument is that "amalgamation was a means of increasing branches more rapidly than otherwise would have been practicable; for it is far easier, as well as much cheaper, to take over branches already existing, however unsuccessful they chance to be at the time of amalgamation. . . . The fact that amalgamation made possible the acquisition, if need be, of scores of branches at one stroke, at a cheaper rate than independent establishment (*sic*), meant that the money which was saved in consequence could be devoted to working up the business" (p. 118). Mr. Sykes has only proved that amalgamations increase the branches of given banks at a

more rapid rate than would have been the case otherwise; but this does not prove that amalgamation increased the aggregate of all branches. He only tries to show that if two banks with 100 branches each had not amalgamated, they would not, in all probability, have both increased their branches by 100 each; but if they had not amalgamated they might both have increased their branches, each by, say, 25, in which case the total number of branches without amalgamation would have been greater than with amalgamation. It might be argued (*a*) that amalgamations result in a waste of the economies got by obtaining some branches cheaper than they otherwise could have been obtained in an unnecessary extension of branches elsewhere, although Mr. Sykes deprives himself of this argument by stating (*loc. cit.*) that "the money which was saved in consequence could be devoted to working up the business. That this usually happened there is no doubt, for it is frequently mentioned in bank reports." Opening fresh branches is just what a practical man *would* call "working up the business," but Mr. Sykes ought not to have passed this without critical comment. It might also be argued (*b*) that amalgamated banks miss opportunities of economy when they do not close redundant branches in "overlapping" areas. Lastly, it can be argued (*c*) that when two banks amalgamate, a third steps in, and so indirectly amalgamation increases the total of branches beyond what they would have been without amalgamations. Mr. Sykes does, indeed, refer to these last two matters, but his general argument as to the relationship between amalgamation and branch policy seems to me to require strengthening. He is, of course, perfectly right to question the expediency of opening more and more branches without regard to the growth in the total "banking population": the policy of the "Big Five" in this respect in recent years has been completely wasteful, and if Mr. Sykes had been even more emphatic on this point the reviewer would have agreed with him.

The book is not free of weaknesses, of style and argument, and of accuracy. Mr. Sykes is too fond of question-begging phrases, such as this one: "the practice of banking has been put on to a scientific basis, and has become more and more logicalised" (*sic*). What *is* scientific banking? The author is quite wrong in thinking that "it was the speedy progress of joint-stock methods, largely made possible through amalgamation, which made the use of cheques a reality instead of a theoretical possibility." On p. 121 he makes the remark that since the Bank had not been required to hold gold against the notes taken over

from other banks, the effect of amalgamation, which caused the transfer of issues, has been "to reduce perceptibly the Bank's reserve of gold." This is perhaps questionable, but it may pass. What is not questionable is that Mr. Sykes is in error in arguing further: "The return dated August 14, 1924, showed that the reserve was 16·87 per cent. of liabilities. If the Bank had been required to issue the extra £5,750,000 in notes against gold, the percentage would have been 21·5." As a matter of fact, on August 14, 1924, the return showed in the Banking Department a reserve of £20·2 millions of notes and £1·8 millions in coin against total liabilities of £140·3 millions. Even if the total of notes issued against gold had been £5¾ millions more and the fiduciary issue £5¾ millions less, this could not possibly have altered the figure of the reserve ratio in the Banking Department by a fraction of one per cent. All that it would, at most, have done is to increase the total stock of gold by £5¾ millions. This confusion between banking reserve and total stock of gold is frequently made, but it is rather disheartening to find it in a book by a graduate of two universities.

T. E. GREGORY

The Foreign Exchange Market. By H. F. R. MILLER, B.A. (London: Edward Arudel & Co. 1925. Pp. vi + 147. 8s. 6d. net.)

Modern Foreign Exchange and Foreign Banking. By H. W. PHILLIPS. (London: Macdonald and Evans. 1926. Pp. vi + 288.)

THE evolution since the War of the foreign exchange market, as regards structure, usages and methods of trading, has long made it desirable that it should be described by men familiar with the practical details of the operations performed. Both Mr. Miller and Mr. Phillips possess the necessary practical qualifications, and both have produced useful and informative books.

The discussion of the "Foreign Exchanges" has two aspects. The first concerns the economist, whose primary function in this connection is to answer the question: What are the causes which lead to alterations in the relative values of currencies? The second aspect concerns the practical cambist, whose function it is, in so far as he is a writer, to explain the mechanism and the detailed workings of the institutions with which he is connected. Unless a writer has received both an economic and a practical training he should be extremely chary of introducing matter

which is not strictly germane to the particular aspect with which he is dealing. One of the worst consequences of the old "Balance of Trade" doctrine has been that it has led to a confusion between the economic and the practical sides of the problem: it has led practical men to imagine that they are dealing with the ultimate economic issues when, in fact, they are (or should be) dealing with an essentially different point, with which they as practicians ought alone to be concerned, viz. the attainment of day-to-day market equilibrium. The modern Purchasing Power Parity theory has the great merit of making a clean cut between the two aspects of the problem.

The temptation to go beyond the strict requirements of their task is one, however, that practical writers usually succumb to, and though Mr. Phillips, in particular, complains that "the popular text books . . . are overweighted with economic theory," he yet manages to introduce some rather questionable economic doctrine in his earlier pages, whilst both he and Mr. Miller attempt to cover the whole working of the money market as a kind of preliminary to their treatment of the exchanges. The scheme of Mr. Miller's book lends itself better to this sort of introduction than Mr. Phillips', but I cannot help thinking that both books would have gained if their writers had not tried to compensate for their departure from their true field of inquiry by undue compression of the extraneous matter introduced.

Of the two, Mr. Miller's book strikes one as the better fitted to be put into the hands of students who are beginning the subject. It is shorter and is not too technical, and, if the present writer does not always agree with the monetary theories of the author, that is no doubt due to the fact that we have learnt our economics at different institutions.

On the technical side, Mr. Phillips' book seems to me to be much the best now available. Nothing could give one a better idea of the atmosphere of the market than the kind of shorthand language reproduced in Chaps. VI and VII: the reader learns more from it than from any number of pages of mere description. But it is emphatically *not* a book for a beginner in the field. Mr. Phillips never gets very far away from the sometimes obscure language of the market, and he has overlooked the golden rule that explanation involves saying things three times over. But for advanced students the book should prove most interesting and stimulating. Incidentally, Chap. XIV, which deals with Australian and South African Exchange, reveals how greatly the monopolistic organisations which control these markets have

lagged behind in the provision of facilities for their customers, in striking contrast to those banks which work under the highly competitive conditions of the International Money Market.

T. E. GREGORY

The Machinery of Business. By A. G. BARRALET. (George Philip and Sons, Ltd. Pp. xii + 226.)

A Brief Introduction to Public Finance. By K. S. PANCHOLY. ("For Young Princes" Series.) (Rewa, C. I. Pp. xvi + 106.)

Economics of Engineering. By B. C. CHATTERJEE and L. D. COUESLANT. (Benares: Surjya Narayan Chatterjee. 1925. Pp. iii + 384.)

Money, Banking and Foreign Exchange. By R. C. MILLS and F. C. BENHAM. (Sydney: Angus and Robertson, Ltd. 1925. Pp. 232.)

THESE four text-books vary very considerably in method and in value. Mr. Barralet's book is meant for a text-book on business procedure. Its style and content are best indicated by the following extracts from the publisher's notice and from his own preface. "An absorbing narrative of the progress of two young men who start as general merchants in circumstances which enable the reader to study business situations and relations as they arise in everyday life. . . . In following their fortunes, every cog in the Machinery of Business is examined and discussed in due season, and as a part of a natural sequence of events." Some people will, no doubt, find it easier to understand the drawing up of a deed of partnership or the definition of a bill of exchange, when it is thus mixed up with the "human element" in the shape of the activities and comments of Messrs. Frank Melow and Charles Orpenshaw. To the present reviewer it appears simpler to look them up in the ordinary form of commercial text-book. Mr. Barralet's account of the origin of Trade Unions is incorrect. They far more often began as benefit societies than "to withstand the tyranny of unscrupulous employers," nor is it true to suggest that their benefit activities have been superseded by National Insurance and Old Age Pensions. Mr. Barralet also forgets to say that State Insurance itself is very largely administered through the Unions.

The second of these books is written by the ex-tutor to the Maharaja of Rewa for the benefit of young Indian Princes. The standard of the book is not above that of the upper forms of an

English High School. The bibliography, on the other hand, ranges from Stamp's *Principles of Taxation* to the most elementary text-book on general economics. The book is too brief to be of much value, though the bibliography is a useful addition. The account of the main heads of expenditure and of revenue in an Indian native State is clear enough, but the discussion of the principles of taxation is very confused. Deterrent taxes on drugs should not be discussed as though they were part of a tax system based on "faculty," by which the author appears to mean "ability to pay," nor can specific registration and stamp duties be regarded as part of a similar system. The statement that repayment of loans is to be effected by converting the debt from one form to another seems to be a dangerously misleading doctrine to inculcate into young princes.

Messrs. Chatterjee and Coueslant's book falls between these two highly elementary works and the next, which is a text-book of University standard, on ordinary lines. It is written for students of engineering in India and is intended to instruct them in the business side of their profession. It deals rather inadequately with monetary problems—a book for Indian students should surely give a more detailed account of the Indian monetary system—and at considerable length with questions of factory planning, overhead costs, depreciation and so on. One or two points suggest themselves for criticism. The beginner will be puzzled when he encounters bank reserves at a later stage in his reading, since the term is here only used to indicate reserve funds and not at all in connection with holdings of notes and specie. What do the authors mean by a system of "payment by results" which "has never obtained any vogue in the West," and is distinct from piece rates? The first sentence on the top of p. 272 is meaningless as it stands, but the printing throughout is peculiar and may be at fault here. The book is written in a lively style and concludes with a wise warning against the uncritical adoption of Western methods of mass production in the East.

Messrs. Mills and Benham's exposition is based mainly on Mr. Keynes' "Monetary Theory." The book is an outline only, and many points are very lightly touched on, but they are touched on in a way likely to provoke a "how" or a "why" from any intelligent student. The inquiry, thus stimulated, was no doubt dealt with at the time these lectures were delivered, but with the lectures in book form, references for further reading would add greatly to their usefulness. The

weakest part of the book appears to be that on bank credit. It may be important to insist that no more can be lent than is borrowed, but to justify this assertion on the ground that the loans made by banks are subsequently lent to them by their depositors, is to omit, for the sake of a verbal point, the fact that they can and do create purchasing power, and to obscure the reality which lies behind the surface facts of book-keeping, viz. that it is the community at large which, owing to this placing of purchasing power in the hands of dealers and entrepreneurs, is obliged, willy-nilly, to do the real saving to which bank loans correspond. There appears, also, to be a confusion on p. 160. If the Bank of England sells securities with the intention of enforcing a higher rate of discount on the market, either the existing Bank rate or a higher, two methods are used in conjunction. It would obviously be useless to sell securities and lend the proceeds again at a rate not above the market rate, but it is merely misleading to say that because the Bank does lend the proceeds, it is using the method of a high Bank rate and not the method of diminishing the supply of floating capital. Moreover, at the higher rate, less will be borrowed and the amount of floating capital in use will, in fact, be diminished. The book naturally contains a good deal on the Australian monetary system. This adds considerably to its interest, while the frequent references to and comparison with English conditions retain its value for English students whose time for miscellaneous reading on banking is limited.

J. E. NORTON.

La Restauration Financière de la Belgique. By ALPHONSE A. JOUVET. (Paris: Giard. 1925. Pp. 217.)

This is a thesis written with a view to the degree of Doctor of Laws in the Faculty of Laws of the University of Paris, where it received high commendation. Everyone will endorse the verdict of the Paris professoriate, for M. Jouvet's work is an excellent exposition of the problems of public finance and currency in post-war Belgium.

The writer begins with a brief sketch of the causes which led to the dislocation of Belgian finance at the time of the Armistice, and shows how the country's antiquated fiscal system invited just such a process of dislocation. He then proceeds to examine the steps taken for the re-organisation of the nation's finances, and the measures adopted to stem the rising tide of public expenditure. Immediately after the War, when the devastated

regions waited to be restored and industry and trade, stifled or destroyed by the Germans, could not dispense with assistance, it had not been possible to count the cost. The new taxes, which M. Jouvet describes, constituted a veritable fiscal revolution. Taxation had risen at the time of writing to nearly ten times the figure of 1914, or, allowing for the depreciation of the franc, to 244 per cent. of the previous contribution per head. Since then fresh taxes have been imposed which will still further increase the burden borne by the population.

In our opinion the author might have laid more stress on the social consequences of this revolution in the realm of public finance. Until the War, Belgium enjoyed, among great industrial nations, a peculiar privilege: her taxation was insignificant. The influence exercised by this privilege on the cost of production, and on the whole national economy, is obvious. To-day Belgium is reduced, in this respect, to the level of her rivals, and has thus lost one of her advantages in international competition.

M. Jouvet then traces the various steps in the progressive diminution of annual deficits, until revenue caught up expenditure and the Budget balanced. Unfortunately, since the completion of his thesis, new difficulties have arisen and considerable sacrifices will be required to ensure the balancing of the Budget of 1926.

The above study of the Budget and of national taxation is supplemented by a review of the position of the Belgian Treasury since the War. The writer begins by showing how far Belgium exercised her right in the matter of priority of Reparations, and what payments she actually received from Germany in accordance with the provisions of the Peace Treaty. This is one of the chapters which will most interest the British reader, but it seems to me that too much interest has always been attached in Great Britain to the Belgian claim to priority. We are here shown how the claim has been reduced again and again, and how much it has been finally whittled down by repeated concessions on the part of the Belgian Government. The table of German remittances gives the measure of our disappointments, and leads quite naturally to an explanation of the difficulties encountered by the Belgian Treasury in meeting the formidable commitments which the State had undertaken.

The currency problem cannot be avoided in a study of financial restoration. M. Jouvet approaches it with impartiality and caution. After an attempt at striking a balance between liabilities and assets, he explains the measures adopted to arrest

the depreciation of the franc. On the questions of stabilisation of the currency and of the return to the gold standard he reserves judgment. He says, however, that "the former parity of the currencies, which must serve as an ideal to the efforts of the nation, will appear in the far-off distance as evidence of complete monetary rehabilitation." Then he asks, very pertinently, how near we can approach to this ideal, and suggests that it will no doubt be more advantageous to consolidate the position we have reached with so much effort and sacrifice, rather than to continue the thankless climb up that steep gradient.

In a sense events have justified this view. M. Janssen, the new Minister of Finance, adopted, rather suddenly, the policy of immediate stabilisation, and won over both the Cabinet and the majority in Parliament to his decision. It is common knowledge that he is definitely committed to monetary reform. The year 1926 will assuredly witness the success or failure of a policy which can only be described as venturesome and full of risk.

Taken as a whole, M. Jouvet's book is an interesting and important contribution to the financial history of Belgium, and offers profitable reading to those who are interested in the financial problems of the disturbed times in which we are living.

ERNEST MAHAIM (*Trans.*)

The Currencies of China. By EDUARD KANN. (Shanghai: Kelly and Walsh. 1926. Pp. 540. Mex. $12.50.)

THIS book has had a very good reception in the Treaty ports of China, and has undoubtedly become immediately the standard work on the subject of metallic currencies in China. Mr. Kann, who is of Czecho-Slovakian nationality, writes extraordinarily good English, and even in the few instances where it is apparent that a foreigner is writing, his meaning is never obscured. It is not frequent in China to find men of practical experience taking an academic interest in their work. Mr. Kann has had long experience as a bank manager in various parts of China and has since been operating as an Exchange Broker in Shanghai. In addition he has collected information with care and discretion in preparing his book.

The question of exchange dominates the whole of the import and export trade of China, and the question is frequently a complicated one. Exchange problems are not, however, confined to this trade, for every port or trading centre has its own currency.

It is not infrequent for a firm in Shanghai with branches throughout China to be concerned with twelve or more internal exchanges in addition to four or five foreign exchanges each day. It is usual for men to join commercial houses in China without any but the haziest knowledge of these things. Here is a book that should be of the utmost use to those at home who propose joining banks or businesses in China. Here also is the only book known to the writer that will give any reasonable idea of the subject to those who do not live in this country, and it will doubtless find its place in many Economic Libraries.

There are three parts to the book; the first is concerned with gold, the second with silver, and the third with copper. Each contains a short history of the use of the metal in China and its present status. Although China is on a silver standard, it is shown that gold is quite extensively used and that the Gold Exchange in Shanghai is a very active and influential factor. No figures are published, but the volume of transactions is far in excess of what would have been expected by any except a member of the Exchange. Mr. Kann considers (as a member) not only that these operations have a very material effect upon the rate of exchange of the Tael, but also that their influence may be very much wider. He offers as an explanation of the fall in value of the Japanese Yen during 1924 the operations of speculators in Shanghai, who, he states (p. 44) were unanimous in selling Yen. This must necessarily have accentuated the fall, but the explanation offered by Mr. G. C. Allen (ECONOMIC JOURNAL, March 1925, p. 80) seems to the writer to be of infinitely greater importance. During 1925 the Yen increased in value again, and Mr. Kann states, "The perseverance on the part of the Shanghai gold dealers in continuously buying Yen in very large amounts was the principal factor to cause a marked improvement in another country's currency. The immediate result was that Japan's currency gained in value, chiefly through the enterprise of members of the Gold Exchange." The recovery in the Yen was only partial, and the writer suggests that it may have been largely due to an improvement in the trade balance after the first effects of the earthquake had gone, to the export by Japan of gold (*Manchester Guardian Commercial Annual Review*, pp. 36 and 57), and to a natural reaction after a rapid fall.

The importance of copper in China is not infrequently overlooked, but Mr. Kann writes fully on this. Copper is still the chief medium of exchange for the vast majority of the millions of China.

The conditions under which coinage takes place in China are well indicated by the following quotations :—

"There were two attempts, made under official auspices, to debase the fine contents of the Yuan Shih Kai dollar. The first incident is the more condemnable, as the schemers were the authorities in charge of the Government Mint at Anking. The underlying motives were connected entirely with profit-making, irrespective of the interests of the community and of State finance."

"Towards the end of August 1925 it was brought to light that debased Yuan Shih Kai dollars were circulating in Shanghai. It is generally surmised that the debased dollars have been turned out at Shanghai unofficially by a powerful Government functionary, with machinery secretly imported. The object of this shady manœuvre was personal gain and greed."

In addition the writer is credibly informed that when a Customs barrier was put up against debased twenty-cent pieces from the province of Kwangtung, these coins were introduced into Shanghai by Chinese Men-of-War, which are not susceptible of Customs examination.

It is hoped that Mr. Kann will be persuaded to write a parallel volume on Paper Currency in China. In the meantime a rather difficult but very fruitful field for economic research lies open. It may be remarked here that this book is excellently produced, in striking contrast to many of the books produced locally in foreign languages.

C. A. ASHLEY

Θεωρία τοῦ χρήματος καὶ πολιτική τῆς νομισματικῆς ἐξυγιάνσεως ὑπὸ Δημ. Καλιτσουνάκι.—'Αθῆναι. 1926. Ἔκδοσις Βασιλείου. (Theory of Money and Policy of Monetary Reconstruction. By DEM. KALITSOUNAKIS. Athens. 1926. Vassiliou. Pp. viii + 96. 8vo.)

THE author of this book is a Professor of Political Economy in the Commercial Institute of Athens, and at the same time Lecturer in Economics at the University of Athens. He has studied at the University of Berlin and has made himself known in Greece through his translation of Herkner's *Die Arbeiterfrage* and as editor of a good economic Quarterly (*'Αρχεῖον Οἰκονομικῶν καὶ Κοινωνικῶν 'Επιστημῶν*).

This book gives in its first chapter an historical introduction about the origin and the evolution of money as well as a short exposé of the controversy between the metallist and the nominalist

(state) theory of money value. The second chapter deals with inflation, with foreign exchanges (Prof. Cassel's purchasing power parity theory) and with the social consequences of inflation, as expounded in Mr. Keynes' *Monetary Reform*. In the third part the author tries to systematise the different processes of monetary reconstruction under four heads: (1) Restoration, (2) Stabilisation, (3) Devaluation, and (4) Reduction, and concludes in favour of the first, where the falling of the money value is less than 20–30 per cent. In the last chapter the author deals with the experience on the matter of stabilisation till to-day in the different countries, with the propositions made in order to stabilise the purchasing power of money (Fisher, Keynes, etc.), and with the remedies proposed in Greece in order to stabilise the drachma.

The chief merits of the work lie in the concise way in which the author deals with so many-sided a subject, as well as in the application of Greek terms instead of the respective foreign terms, a task in which the author succeeds well enough, and lastly in the rich bibliography (mainly German) given in the footnotes of the work.

J. COUTSOYANNIS

British War Budgets. By F. W. HIRST and J. E. ALLEN. (London: Humphrey Milford [Oxford University Press]. 1926. Roy. 8vo. Pp. xiv + 495. 15*s*. net.)

DISAPPOINTMENT is relative to expectation; but the confident anticipation that we should find these practised authors combining to produce a valuable study of this important subject is far from realised. Their object "has been to give an adequate presentation of British War Finance as displayed in the twelve Budgets from 1914 to 1924." Their method has been to abridge the parliamentary debates on these Budgets and to add here and there some phrases of comment, which are scattered throughout the volume like beads without a string. The whole story resembles a report from the Press Gallery of the House of Commons to a Liberal newspaper. This limited point of view seems to have been self-imposed, since Mr. Hirst is a member of the Editorial Board of the Carnegie Endowment, on whose behalf the book has been compiled.

A budget is but a programme. The important questions are what was done rather than what was proposed, what was the effect of the measures taken rather than what was said in Parliament before those measures were sanctioned. Everybody

knows that for the most part the speeches made by private members after the Budget has been opened are as ineffective as the idle wind. Year after year the same members air their particular fancies—the capital levy, taxation of land values, higher or lower rates of death duties, or income tax and super-tax, or indirect taxation, new taxes (seldom worthy of serious financial consideration), hard cases, minute suggestions on points of detail, prophecies and forebodings, and a large selection of platitudes not deemed worthy of mention even in the next morning's *Times*. Seen in perspective these contemporary comments and vain repetitions are almost entirely non-significant. To resurrect them from the pages of Hansard long after they have been decently buried and forgotten is surely not worth while. What, for example, does it profit us to know that "a new point was raised by Sir Charles Yate, who suggested that if women were given the same votes as men they should also pay the same taxes, yet 'the only taxes a woman now pays have been reduced by $1\frac{3}{4}d.$ a lb. on her sugar and $4d.$ a lb. on her tea'"? To describe this as a point is flattery. Caustic mention of it might have served to pad out a journalist's copy. To enshrine it with countless other inane remarks in this historical chronicle is merely to burden the reader with brute matter. A vast amount of useless detail might have been pruned out of the reports with advantage.

But the sins of omission are more serious. If they were going to take so wide a sweep as twelve Budgets, the authors might have started with 1913, not only to continue the story where it is left off by Sir Bernard Mallet's *British Budgets*, but to show clearly how we stood when we entered upon the task of financing the War. For lack of a conspectus of pre-war taxation the references to increases of existing rates compel research into the old rates. To discover what shape the Budgets finally took we must turn aside to the Finance Acts. To find the "out turn" or results of the Budgets we must look into the Finance Accounts and examine the figures under the various heads of revenue and expenditure. To make allowances for the changes in the value of money we must hunt up a table of index-numbers. To compare our financial position in 1924 with what it was in 1914, the social reactions of our War finance, the altered total and distribution of national wealth, and to discuss the outlook as affected by the various financial changes, we needed a compact essay in conclusion. Left to do all this for ourselves we cannot feel that we have been given "an adequate presentation of British War Finance." There is no reference to any of the abundant

literature on the subject, not even to Hansard. We are not told how much the separate revenue and expenditure of the Irish Governments amounted to at the end of the decennium and are left without any criterion of the effect of Home Rule upon British Budgets. At every turn we feel the need for further information to understand the story unless we are acquainted with it already.

Viewed merely as a *précis* of Budget debates the volume lacks the discrimination which would preserve only what is worth preserving. As a piece of history it is wanting in completeness, in articulation of structure and in connecting filiation of thought. As a critical study it affords no new light. Severe as this judgment may seem, the authors, who have shown that they can do so much better, cannot be acquitted of having lost an opportunity. Their industry and ability are established. But they are not conspicuous in this compilation.

HENRY HIGGS

Life and Letters of Thomas Jefferson. By F. W. HIRST. (Macmillan & Co. Pp. 588. 25*s.* net.)

A VAST literature has been built up in the United States round the heroes of the American Revolution and the Fathers of Confederation; but English readers know little of it. It is only when a popular and eloquent English historian like Sir George Trevelyan writes about the Revolution that Englishmen read about it; and it is scarcely an exaggeration to say that most Englishmen who know anything about Alexander Hamilton know it only from Mr. F. S. Oliver's brilliant biography. An Englishman's study of another great American of that great age is therefore very welcome; and it may be hoped that Mr. Hirst's book will do much to dissipate the ignorance which prevails in this country about the man who ranks in the minds of many Americans as second only to Washington among the giants who made the United States. Mr. Hirst's narrative is a little long, but its style is admirably simple and direct, and it never fails to be interesting because its subject is so remarkable a man and one who played so great a part in such great events. Readers of this book will find themselves at the very heart of the American Revolution; for it was Jefferson, of course, who drafted the Declaration of Independence. They will watch the emergence of an old quiescent conservative society like that of Virginia into an age of conflict and new ideas; for Jefferson was one of the ablest Virginian politicians, Governor of the State during part of the

War of Independence, and the leader of liberal reform. They will obtain a very interesting sidelight on the opening moves in the drama of the French Revolution; for Jefferson was American Minister at Paris from 1784 to 1789. They will see the new American Government at work, operating the new constitutional machine and setting it on a sound financial basis, beset by party and personal antagonisms and by the impact of the French Revolution and the Napoleonic War, drifting into the unfortunate "War of 1812," and finally emerging into an era of peace and good-will; for Jefferson succeeded Adams as President of the United States from 1801 to 1809, and was the friend and confidant of his own successor, Madison. And the story is illuminated all the time by the personal commentary—the letters and talk and philosophic reflections—of the Sage of Monticello.

It is a fine book, but it might have been finer. Mr. Hirst is too devoted a biographer to be a good historian. The history he presents is Jeffersonian history. His judgment of men and measures, of causes and effects, is apparently the same as Jefferson's, since Jefferson in his opinion was virtually always right and his opponents always wrong. And this onesidedness is the more remarkable because in his preface and elsewhere Mr. Hirst criticises Mr. Oliver with unusual acerbity for favouring Hamilton at Jefferson's expense. Yet in his own pages he commits the same crime in reverse. Every act of Jefferson's is inspired by a sense of public duty, every act of Hamilton's by private ambition. The one is a transparently candid patriot, the other a dark and dangerous intriguer. Mr. Hirst, indeed, might be living on the morrow of the controversy and not a century after it, when most thoughtful Americans, recognising that both men were great and neither wholly free from human imperfections, have long ago set them side by side in their national pantheon. And similarly with other questions. A fairer account of the causes of the American Revolution or the War of 1812 is given by several American historians than by Mr. Hirst, or rather by Jefferson, uncorrected and unmodified by Mr. Hirst. Much, therefore, as we value and enjoy his book, we must still await the ideal biography.

R. COUPLAND

The Facts of Industry: the Case for Publicity. By LORD ASTOR, and others. (Macmillan. 1926. 1*s.*)

THIS is the Report of a Committee of which Mr. W. T. Layton was chairman, and which included prominent representatives of

Labour and Capital. The case which they state rests on the importance of more complete information as to the causes of industrial peace, trade stability, and the security of the investor; governed by the general consideration that the theory of private enterprise, when it presupposes an advantageous flow of labour or capital in the directions where they are most needed, itself implies a reasonable publicity of relative profits and other conditions.

The general conclusions will scarcely be regarded as controversial, but they are set out with a conciseness and lucidity which should cause this pamphlet to be widely used and quoted. On the first point, that of industrial relations, the existing means of publicity are classified, in addition to official sources, according as industries make use of the relevant statistics as a normal practice, or only on special occasions; and a draft is added of the information suggested as necessary for a general application, the industry being taken as the unit. Might not this draft be amplified by the inclusion of the number of shareholders, the smallest number who own half the shares, and the number of shares owned by the upper quarter of owners? and also by some figure to show employees' shareholding? The Committee suggest that a compulsory basis is necessary, and that the Board of Trade should be empowered, in default of a competent authority for any industry, to collect and publish the facts. To an interesting summary of the statistics now in use regarding industrial fluctuations, and of opinions on their effect, they append a proposal, also to be carried out under the requisition of the Board of Trade, for regular information as to Stocks, Deliveries and Orders. The investor, in the third place, should be protected by balance sheets available on demand for a fee, in a suggested form, and within six months after the conclusion of the accounting period.

D. H. MACGREGOR

The Need for Eugenic Reform. By LEONARD DARWIN. (London: John Murray. 1926. Pp. 532. 12s.)

IT is not inappropriate that the son of the man of science who did more than anyone else to win for the conception of evolution a place in the mental heritage of all educated people should have written the most important book yet published on eugenics. For the central conception of eugenics is the desirability, if not the necessity, that man should take into his own hands the direction of his future evolution. When we remember that it was Sir Francis Galton, a cousin and contemporary of Charles

Darwin, who coined the word eugenics, it is obvious that it is difficult to measure the debt we owe to the author's family for their painstaking, illuminating, and ever-broadening treatment of this theme.

If man is to take up this task he must first gain knowledge of the part played by inheritance in human affairs. It is an error to suppose that biologists and students of inheritance as such can now provide, or will ever be in a position to provide, information upon all the aspects of this problem. Upon a knowledge only of the results reached by biologists in the field usually assigned to them, a programme for the guidance of human evolution cannot be founded. To the results won by biologists in their special field there must be added the results of a study of the distribution of inherited characters within the population, and of the changes in their distribution, and of a study of the manner in which inherited qualities manifest themselves under different surroundings. These additional studies constitute a science in themselves, and the primary need is thus for a science of eugenics. This need is not adequately realised by the majority of those who write on this subject. They forget that the building up of a pure science not only makes it possible, but also in a vigorous and alert community does more or less ensure, that it will be applied so as to promote human welfare when its results are clear and incontestable. Again, the existence of an organised body of scientific knowledge ensures that proposals emanating from cranks and masquerading in the guise of applied science will gain no serious attention and merely bring the promoters of them into ridicule. As things are, the numerous cranks who call themselves eugenists and who are Major Darwin's worst enemies do succeed in bringing eugenics and not merely themselves into discredit in the eyes of instructed people, just because there is no recognised and authoritative body of eugenic knowledge against which their pretensions can be measured. The "flat earth" theorist could hardly get a letter into the worst-informed of our newspapers, but the communications of persons quite as ignorant of the relevant sciences as the "flat earth" theorist is of physics appear upon the problems of eugenics in papers and journals of the highest repute.

Major Darwin is not to be numbered among those who fail to recognise the need for a science of eugenics. His mind is, however, so keenly engaged with proposals for reform that he fails to emphasise this need and seems inclined towards an undue tolerance for the cranks, whom he perhaps regards too sympathe-

ally because they are engaged upon the crusade the objects of which he has so much at heart. In somewhat laborious fashion he traverses the whole field with his eye always upon proposals for reform. Neglecting the latter for a moment, what is there to be said of his views as to the position in this country to-day? We do know something definite about the inheritance of human traits and about differential class fertility. We know little or nothing about the relative fertility of groups such as paupers or the mentally defective, and in respect of the latter matter Major Darwin here, as elsewhere, inclines to a rather more pessimistic view than the indications warrant. We know very little about the manifestation of human characters under changing social conditions and about inherited differences between the classes. The last matter is of fundamental importance. The classes make very different contributions to future generations. Do they differ markedly in aspect of endowment? There are two ways of approaching the problem. The results of applying intelligence and other tests lead cautious workers such as Mr. Cyril Burt to think that slight differences may exist in respect to that relatively small aspect of mental endowment which can as yet be so measured. Secondly, since the classes are distinguished by their incomes, is income an indication of innate endowment? With regard to the first point, Major Darwin seems to go slightly beyond the available evidence in deducing that differences exist, and with regard to the second he appears considerably to under-estimate the strength of the institutional factors which go to determine a man's occupation and income. Nevertheless these factors are coming to be of less account. If the mechanism for the selection of those occupying the better-paid posts becomes more perfect, and differential class fertility continues, a truly serious prospect opens out.

The author's attitude to the wider problems of the importance of inherited characters in social development is perhaps open to more serious criticism. Inherited qualities are essentially limiting factors, whereas he would seem to imply that they are something more. An improvement in the innate endowment of the race would make possible but would not ensure achievement of greater social value. He speaks (p. 307) of the "colossal sum" expended on "public assistance," which in his definition includes education. It is not irrelevant to remark that the misguided persons who plunged Europe into war and cost us far more colossal sums belonged to the upper classes. He forgets that a few efficient human wolves if not tamed by civilisation may cost

us far more than the flocks of silly sheep. His reference to "public assistance" shows that he is not entirely without sympathy for the view that regards the poor as an inefficient group parasitic upon the efficient rich. But it would be erroneous to give the impression that Major Darwin's careful and thoughtful discussion does more than incline slightly too much towards pessimistic conclusions.

The problem is a real one, and even if the position is not getting worse, there is an overwhelming case for the consideration of proposals for reform. Whether mental deficiency is increasing or not, it is a eugenic problem of serious extent. Eugenists by their alarmist attitude tend to obscure this simple point. Major Darwin has nothing startling to propose, but his sane and sober discussion of remedies deserves careful attention. He favours sterilisation and prohibition of marriage under certain circumstances. He thinks that contraception is inevitable and might be racially beneficial. He has an appreciation of what is and what is not politically possible. But it is to be regretted that while he resembles in honesty of purpose and breadth of view those members of his family who have put us in their debt, the resemblance does not extend to literary facility. There is a heaviness of hand which weighs upon the reader, who longs for Galton's lightness of touch, which makes his books still a joy to read, and for his father's sober and masterly prose.

A. M. CARR SAUNDERS

Some Problems of Wages and their Regulation in Great Britain since 1918. By ALAN G. B. FISHER, Ph.D. (London: P. S. King. 1926. Pp. 276. 12*s.* 6*d.*)

FROM the point of view of subject-matter, Dr. Fisher's book may almost be described as being two books in one. He seems to suggest this himself in his Preface, which begins, "This study aims at an historical presentation of some of the more important wage problems that have arisen since the War," while its second paragraph states, "In addition to questions of method . . . the following wage problems are also discussed: relation of wages to cost of living, etc." This seems a perfectly reasonable combination of subject-matter, and an eminently sound method of approach, in so far as it is intended to utilise the historical facts as an aid to critical analysis and a search for the solutions of these problems. Attention is drawn to the two parts of the book not on the score of method, but because they are of very unequal

interest and merit—unless, indeed, the author's objective was much more limited than might be imagined or desired.

The historical presentation is eminently satisfactory. Dr. Fisher has digested an immense amount of material, and presents his conclusions clearly and with an attractive style. His reproduction of contemporary atmosphere and thought, and their swift and subtle changes during the immediate post-war years, is highly successful, and his aptitude for telling quotation finds full and legitimate scope. Starting with a brief description of wage regulation during the actual war years, he records the transformation of the Committee on Production into the Interim Court of Arbitration, and finally into the Industrial Court. He searches carefully for the evolution of any principles of wage legislation, and if on the whole his search is somewhat barren, he is to be thanked for even this negative conclusion. His recital, however, is very far from mere narrative, for it is interspersed with comment and criticism, much of it highly interesting. Mention might be made, in particular, of his account of the National Industrial Conference, and a short chapter on the effect in Great Britain of international labour legislation developments. The history of all the experiments in methods of wage legislation since 1918 certainly merits careful study, and Dr. Fisher has fulfilled the need most adequately and with well-judged promptitude.

The discussion of different wage problems is inserted in the historical account as opportunity offers. It cannot be said that Dr. Fisher makes any considerable contribution to the understanding and proper appreciation of these problems, nor does he offer any material assistance towards their solution. In most cases he contents himself with presenting the opinions of various well-known writers, with here and there a comment on the validity of the arguments which he cites. It may be doubted whether at the present moment this is a task worth doing. What Dr. Fisher has done is to offer a historical presentation of current thought on these problems, and nothing more; but after the Preface and the Introduction, one imagines that he is himself going to lift current ideas a stage farther on the road. In the Introduction he whets the appetite of the economist, as also on various later pages, but Dr. Fisher the historian seems to have Dr. Fisher the economist on an invisible leash, and when the latter advances a few steps, he is sternly pulled to heel. It is to be hoped that the leash will break before long, and that Dr. Fisher as economist will claim at least equality of opportunity, even if the results achieved are not of such a high order of merit

as the historical portions of this volume. For, of books on the modern problems of wage determination, the economists' bookshelf is singularly bare, and even a limited contribution would be most acceptable.

J. W. F. ROWE

Geschichte der Produktivitätstheorie. Von DR. JAKOB BAXA, Privatdozenten der Universität Wien. (Jena: Gustav Fischer. 1926. Pp. 180. 8vo. 6.50 mk.)

Produktivität. Von FRIEDA WUNDERLICH. (Jena: Gustav Fischer. 1926. Pp. iv + 358. 8vo. 14 mk.)

IT speaks well for German enterprise that the same publisher should put out almost simultaneously two competing volumes pursuing with zest the same elusive Idea. What do we mean by Production, Productivity, Productive and Unproductive Labour, and the like? How have our conceptions of these terms developed? What light do history and literature and philosophy afford to economic theory as to the nature of Productivity? It will be the reader's own fault if his mind is not well furnished with material for an answer after grappling with these strenuous and well-documented essays.

As the study of economics gets broader and deeper the history of economic thought attracts more attention. It is all to the good that this should take the form of monographs rather than ambitious attempts to cover the whole ground in a synthesis which must be shallow and inadequate until it can be done in the grand manner on a large scale. Such a history must draw largely upon special studies like those before us, and upon many others yet to be written—" materials to serve " for the comprehensive history which we still await.

Dr. Baxa has done his work with care and ability. He takes us through the ages from the Mercantilists to the Physiocrats, the Kameralists, Adam Smith, J. B. Say, and Carey, and apart from these to a long succession of German writers, Fichte, Soden, Müller, Jakob, Hegel, Storch, Hermann, List, Rau, Roscher, and Marx the most important. Copious quotations are given from their works. The expansion of ideas is clearly brought out and it is claimed that the idealistic conception of Productivity with its wide embrace of the immaterial as well as the material factors is to be credited entirely to German thinkers, especially to Soden and Müller, whose memory is now emerging from eclipse. It would seem from internal evidence that Dr. Baxa is handicapped by the language difficulty. He mentions foreign writers only

when he quotes from German translations and, except for a passing reference to John Mill and McCulloch, names no English authority later than Ricardo. If he had known Sidgwick's Socratic inquiry, "productive of what?" he might have found a thread through the labyrinth of inquiry and cleared up much of the discussion which for lack of this precision tends to degenerate into mere logomachy. It is easy to inveigh against the materialism of the Physiocrats and of Adam Smith, and to ask sarcastically whether soldiers and State officials, savants and ecclesiastics, are sterile or unproductive. If with Dr. Bonar we imagine *The Tables Turned* and Adam Smith questioning his critics, we may suppose him to ask, "Did I not say that defence is of more importance than opulence, and that services may be useful, honourable, and even necessary to society without being productive in the sense in which I use this term of art?" It was a very important step to discard this narrow sense, but that is another story, of which Dr. Baxa supplies an adequate version.

Frieda Wunderlich stands on a higher plane and uses a larger canvas. She refers to some three hundred writers, always with relevance and not for mere display, combines great analytical ability with pungent and critical judgment and breadth of view, and passes with ease from the history of the idea of Productivity to a masterly discussion of its significance. She sees in Productivity the end and aim of economic activity to free humanity so far as may be from material fetters to its highest development. It looks forward, therefore, to the future and must be judged by looking backward. Its teleology is considered from the subjective, psychologic, metaphysical and idealistic standpoints. Its technique and organisation are carefully examined as well as its relation to consumption, and the author strives throughout not only to exhibit the Many in the One, but especially to discover the One in the Many. Her firm grasp of economics and her recognition of its essential importance are harmonised with a philosophic outlook remarkable in what appears to be a first essay and single her out as a writer of great promise.

HENRY HIGGS.

English Monastic Finances in the Later Middle Ages. By R. H. SNAPE. (Cambridge: University Press. 1926. Pp. ix + 190. 10*s.* 6*d.*)

WHATEVER may be the case with the physical sciences it is certainly not the case with the historical sciences that progress is achieved by the passionless pursuit of knowledge for its own

sake, undisturbed by the stimulus, or the suggestions, of contemporary controversies. That does not necessarily mean that the historical researches of a period are so biassed by partisan preoccupations as to be of little value; though it has often been so. It may only mean that intellectual interest is awakened to aspects of the past which had been forgotten or neglected; and it may reasonably be hoped that, with the growth of the scientific conscience and the more complete survey of the available material, the range of possible dispute will be progressively narrowed and the area enlarged of permanently acquired truth.

These rather trite observations are suggested by Mr. Snape's most painstaking and really useful volume. Well into last century the monk and the friar of pre-Reformation centuries was pictured by the popular imagination in Protestant countries as—well, as they are depicted in *The Ingoldsby Legends* and in the song *A Friar of Orders Grey!* Against such deeply-rooted assumptions, the new religious and æsthetic movements, with their revived respect for the Middle Ages, were slow in making headway. But before long they were reinforced by the work of historians like Dixon in England and Janssen in Germany. The seamy side of Reformation history was dragged out into the light; with the natural result of awakening doubt, among educated people generally, as to whether even the monasteries in the sixteenth century deserved their hard fate. And the reaction against individualism in modern economic life has caused many who care nothing for theological disputes to be on the look-out for merits in institutions which, in theory at any rate, were not individualistic.

If attention is confined to the two centuries 1450–1650, it will, I suppose, be a long time before unanimous verdicts are reached even as to the external happenings of the Reformation period. The stage dreamt of by Lord Acton in the Prospectus to the Cambridge History, when the reader cannot tell when Cardinal Gasquet drops the pen and Dr. Fairbairn takes it up, may, perhaps, never be reached. Certain ideas or principles may seem so vital that their very defective external concomitants fall into the background. An "agreed report" must be reached by taking a longer view, both backwards and forwards. And it may be facilitated by shifting the discussion to the more sordid perhaps, but less heated, atmosphere of economic history.

Mr. Snape's volume is a considerable contribution in this direction. Putting on one side all questions as to the religious conceptions represented by monasticism, and all the psychological questions as to community life and celibacy, he concentrates his

attention on the actual working in the later Middle Ages of the monasteries as establishments viewed on their material side. How many monks were there in houses large and small, and how many servants had they; how was the necessary daily business of such establishments organised, and what accounts were kept; what were the various sources of revenue and the various items of expense; what sort of meals did they have; how much physical comfort did they enjoy; how much was spent in charity? These are the questions he tackles, working on a broad basis of already printed evidence. For in fact, in recent years, there has been a large publication of evidence, in the way of Visitations and Accounts which enable us to get behind the monastic Rules and discover what actually took place. It was time that the general conclusions should be put together to which the new information leads, and this Mr. Snape has done. Our material is still so full of gaps that it is apparently almost impossible to draw up a complete Income and Expenditure account for any one year of any great establishment. But fortunately the records supplement one another in such a way as to leave little room for doubt on any important topic. In the main Mr. Snape confirms the conclusions to which others have been coming before him. The monasteries did not fall because of any grave moral corruption, but because of their loss of hold upon the interests of their time. They had ceased to be the managers of great estates; they had ceased to be the chief centres of learning.

There are two directions in which inquiries need to be pushed further. One is the growth, side by side with the decaying monasticism of the fifteenth century, of the institutions which, however imperfectly, were to take its place. Chief among them was the parochial system, which in the next century was to be anchored down to earth by the Poor Law. And the other is the history of monasticism in the countries remaining Catholic. How were the monasteries, in fact, functioning in France, for instance, before the Revolution? The use to which the term *Abbé* was put looks as if there was a good deal behind it. It may be found, on a wide view, that the Dissolution of the Monasteries in England did not, in the long run, make so big a difference as we are apt to suppose when we limit our view to the Reformation period.

WM. ASHLEY

Historical Manuscripts Commission, Manuscripts of Lord De L'Isle and Dudley, preserved at Penshurst Place. Vol. I. (H.M. Stationery Office. 1925. Pp. lx + 550. 9*s.* paper, 10*s.* 6*d.* boards.)

THE magnificent collection of family papers at Penshurst Place has long been known owing to the fame of the Sidney family. In 1746 Collins published a selection of the sixteenth- and seventeenth-century correspondence in two folio volumes. Other selections from the papers were printed, including R. W. Blencowe's in his *Sydney Papers* (1825); and then in its early days, before it knew the extent of its task or had evolved a satisfactory method of fulfilling it, the Historical Manuscripts Commission published a descriptive list of the whole collection, occupying, however, only seventeen columns of print and tantalising historians by that pernicious if excusable practice of quoting occasional titbits. The Commission is now going back on its tracks and is to give us (we hope) a full calendar on the new scale which a more thorough historical method and wider interests demand. We welcome the policy implied in this action, for there are other invaluable collections of papers whose sad fate it was to be surveyed in the Commission's early days; and we hope that it may not be long before the Calthorpe collection is similarly reviewed: although these manuscripts were noticed in an early report, one has still to turn to Bernard's catalogue of manuscripts, published in 1697, to know what the collection contains, and yet in Sir Robert Beale's papers it has some of the most important manuscripts for Elizabethan history that are known to be in existence. Mr. Kingsford, the editor of the volume of Penshurst manuscripts now before us, does not say how he proposes in later volumes to deal with the Sidney papers that have already been printed; but in these days of economy it may be well to raise our voice in anticipation and plead for at least such notice of them as was given of Haynes and Murdin's *Burghley Papers* in the *Hatfield Calendar*. Collins' *Sydney State Papers* is a rare work, cumbersome, badly indexed, and (we suppose) not without many editorial errors. The way of the historian too often lies over obstacles of what proves ultimately to have been bad economy.

The Sidneys were one of the great families whom the Tudors delighted to honour. Two lucky marriages made their fortune, one into the Brandon family, which brought them to the court of Henry VIII, Charles Brandon's brother-in-law, the other into

the Dudley family, which ensured a continuance of favour throughout Edward VI's reign, and from the danger of which Henry Sidney wisely escaped by steering clear of Northumberland's intrigues against Mary. Four successive Tudors smiled on them, and the two founders of the family's greatness, Sir William and Sir Henry Sidney, accumulated lands and offices. The former secured the lands of the dissolved Sussex abbey of Robertsbridge, and also Penshurst. The latter inherited part of the Brandon estates, including lands formerly belonging to the church and college of Tattershall in Lincolnshire; also, he was at times Vice-Treasurer, Treasurer, and Lord Deputy in Ireland, and—from 1559 to his death—President of the Council in the Marches of Wales.

It is these lands and offices which supply us with the papers now calendared. We have, if not a complete, a very rich collection of the documents relating to Robertsbridge Abbey lands: charters and deeds from the twelfth century on, excellently calendared; rentals of the fourteenth to sixteenth centuries, of which specimen entries are given; and reeves' and bursars' accounts of the fourteenth and fifteenth centuries, which are adequately calendared. A payment to the king's players (*histrionibus domini Regis*) and other payments to players may be noted (p. 167). The Tattershall documents include the interesting statutes and ordinances for the college and almshouse, also various accounts, and a letter, written about 1460, containing some vigorous English: " y had lever the devyll had any thing of us then he, . . . for he hath sold to[o] many fals halpeny worthes of stynkyng fysshe to compare with a lord or with any gentelman " (p. 187). Comparing the last of the receiver's accounts (1507–8) before the dissolution of the college, with the first extant after its dissolution (1558–9), one sees that the revenues have shot up from £358 (deducting the previous year's surplus) to £941. It looks as though we may have here a concrete example of the increase in the value of estates effected by lay landlords; but the editor unfortunately gives the total receipts without the items, and not having noticed the extraordinary rise himself leaves us uncertain of its significance. Amongst the papers are building accounts, in one of which we notice the phrase " ligna vocata scarfaldpollis " (p. 198), and there is an indenture for the re-erection of a house as an almshouse which reminds one very much of a modern architect's specification (p. 175).

It is unnecessary to point out the value of these accounts for the economic and social historian, but they pale beside the

wonderful series of household accounts amongst the Sidney papers proper. Sir Henry Sidney had households in Ireland as Lord Deputy, in the Welsh Marches as Lord President, and at Penshurst, each with its separate and yet inter-related accounts. There are accounts of the receivers-general or treasurers of the household, and accounts of numerous subordinate officials, even to accounts for the stables. We wish Mr. Kingsford had straightened out this complex household organisation in his Introduction, as it was easier—and perhaps only possible—to do with the original accounts before him. However, it remains an admirable subject for historical study. One subject among many which will interest the economic historian is Sidney's need and method of raising ready money in anticipation of his receipts from the Exchequer. We notice that the Greshams and Benedict Spinola appear as creditors, also the mayor and citizens of Cork and Limerick, and many friends. In one account, out of receipts totalling £4213, £3890 was made up of loans, £3200 being at interest (which seems to have varied from 8 per cent.—a low rate in those days—to 14 per cent.) and £690 from friends.

But to the economic historian the central interest of this volume lies in the series of accounts for the ironworks and steelworks in Sussex, Kent and Glamorgan. The Robertsbridge accounts date from 1541, beginning with the charges for making a forge and a furnace. By 1573 Sidney had farmed these works for a payment of £200 per annum (p. 248). Apparently the average annual production of iron at Robertsbridge and Panningridge was about 115 tons with a clear gain of £270: the maximum figures (in 1562) were 202 tons and £400. There is notice of the importation of foreign workmen, and there is an interesting estimate of the materials and cost of production per ton of "plates" and iron (p. 319). Mr. Kingsford calendars only a few of these accounts—at Penshurst there is practically a complete run of one set from 1542–73—and in calendaring them he has abridged them, often drastically. We think their interest warranted more space; but we suppose it is inevitable, if ironic, that the more important, because more complete, a series of accounts the less adequately they will be calendared. The editor is probably not to blame. The Commission's poverty is mightier than his will. Before turning from ironworks we must notice one astonishing entry: Robert, Earl of Leicester's rental from ironworks in Shropshire is put at £1600 (p. 301).

This review is already over-long and we must leave notice of the splendid inventory of household furniture at Kenilworth, and

other items of interest, and call attention to one or two editorial slips. On pp. 103–4, " if he dies before his wife " should surely be reversed. On p. 167 the editorial [xid.] should be [xd.]. The account on pp. 358–9 is for the year from Lady Day 1571, not from Michaelmas 1570; and the editor's (*sic*) after the total of charges ought to have been put—if anywhere—after the item £104 for diet money. Reference to other accounts (*e.g.*, p. 360) or to Peck's *Desiderata Curiosa*, i. 52, and a little arithmetic, will show that this item should be £1040, the normal Presidential allowance. In the next account the same section of the receipts has gone wrong. The item £1160 should probably be £1560, and the 100 marks seem to have been computed as £100. The editor, however, adds no (*sic*) to guide us in rectifying the error, and we realise ruefully that when items are omitted from accounts in calendaring we are made dependent upon a meticulous accuracy and close attentiveness which may sometimes fail even so accomplished and painstaking a scholar and editor as Mr. Kingsford.

J. E. NEALE

The British Brass and Copper Industries to 1800. By HENRY HAMILTON. (London: Longmans. 1926. Pp. xxvii + 388. 18*s*.)

To write a detailed history of a group of industries of varied and inconstant forms over a period of two and a half centuries is no mean task. Dr. Hamilton has tackled it worthily and has made an original contribution to industrial history. If, here and there, defects are noticed, they are cracks in the plaster and not in the masonry of his substantial pile.

It is in the first chapters that these flaws are most manifest. The origin of the British copper and brass industries in those curious alliances of English courtiers and German capitalists incorporated as the Mines Royal and the Mineral and Battery Works has been disclosed by the researches of Professor Scott and Mr. Collingwood. What is now needed is the play of criticism and imagination on material already accumulated; and Dr. Hamilton's infinite capacity for painstaking research avails less here than in those later periods where he is himself the pioneer.

When he reads that " colliers " brought from Shropshire to work at Keswick had to be watched lest they ran away, he assumes that they were coal-miners in a state of bondage (p. 20). If he had remembered that the Mines Royal had power to impress labour he would hardly have ascribed to these colliers a status of exceptional servitude. And if he had reflected that the word

"collier" had other denotations than its modern one he might have glanced again at his source, and so have seen these men at their regular work of hewing not coal but trees, and converting wood into "coals" in the forest clearings. They were, in fact, neither bondsmen nor coal-miners. The same naïveté appears when the difficulties of the Company in the early fifteen-seventies are attributed to "the smallness of the demand for copper" (p. 25). There is no hint of the general trade depression in England, no suggestion of the storm that had swept away the international money market at Antwerp and that must have played havoc with a concern drawing much of its capital, to say nothing of its labour and enterprise, from the Continent. Again, not all readers will abandon their prejudices to the contrary when they are told that Elizabethan policy was "eminently successful," and that much of the success was due to the close contact between the Council and industry (p. 43). Some will await a finer assay of the evidence than is made in these pages.

In describing the forms of organisation and the relations between rival and consecutive productive groups in the eighteenth century the author is much more successful. An admirable summary is given of the causes of the growth of a small group of Birmingham craftsmen into a great industrial community; and the reasons for localisation and integration are clearly indicated. It is shown that a typical copper or brass company of the time of George II would have a capital of anything from £150,000 to £300,000; and a single set of works might employ eight hundred or more people. Leviathan is not, as is sometimes said, the offspring of the steam-engine. Moreover, the combination movement, which is still sometimes regarded as the latest flower of capitalist evolution, is seen in full bloom during the same period; and most of the species catalogued by modern economists are illustrated with luxuriant detail in this volume. The vertical amalgamation, for example, is represented by the Cheadle Brass Company, which absorbed coal mines and smelting works on the one hand, and wire-drawing and manufacturing establishments on the other. The development of the combine is clearly depicted in the operations of the astute Thomas Williams of Anglesey, who held the majority of the shares in companies with an aggregate capital of £800,000, and who thus controlled half the copper output of the country. The price agreement is exhibited in the compact association of smelters which dictated to the mine-owners the terms on which it purchased ore, and to the braziers and copper-smiths the terms on which it sold its finished product.

And the cartel can be seen in the central selling agency set up by the Cornish miners in their struggles to escape from this tyranny.

The history of the last of these combinations is detailed minutely from the letter-books of Boulton and Watt. When the attempt to control price without control of supply brought its inevitable penalties, the Cornish Metal Company adopted the modern methods of pensioning off the less efficient producers and of dumping surpluses abroad; and ultimately it was forced to take refuge in a new horizontal combination with the Anglesey companies. This, however, was unable to resist the solvent effects of rising prices, and during the last decade of the century competition filtered back again throughout the industry. More successful were the defensive measures taken by the Birmingham manufacturers, who, in 1781, paralleled more than one modern movement by setting up a co-operative enterprise to produce brass, and nine years later buttressed it with a similar concern for the smelting of copper.

The chapter on wages, as was, perhaps, inevitable, is a thing of shreds and patches. Apparently no wages-books were accessible, apart from those of Soho and Smethwick, which were by no means simple brass works; and the only evidence of the earnings of domestic workers in these trades consists of citations from Adam Smith and Arthur Young. It is unfortunate that on the strength of this exiguous material Dr. Hamilton should draw, however guardedly, the conclusion that "the general level of wages . . . in the large works or factories was lower than that prevailing among the small masters and domestic workers" (p. 319). *A priori* we should expect the reverse: and not only do investigations in the cotton industry amply justify our expectations, but tentative inquiries in other metal trades tell in the same direction. But, again, this is a point of detail which it would be ungracious to stress. The greater part of Dr. Hamilton's work is concerned with industrial organisation, and here he is illuminating and satisfying. He has written a book which no future historian of the combination movement can afford to ignore.

In a brief introduction Sir William Ashley signifies approval of the author's belief in authoritative intervention as a positive force in economic progress; adds something to our knowledge of the genesis of Arnold Toynbee's pioneer study; and makes a judicious and convincing defence of the term *Industrial Revolution*.

T. S. Ashton

NOTES AND MEMORANDA

THE BRITISH ASSOCIATION, OXFORD, 1926.

SIR J. C. STAMP presided over the annual meeting of the Economic Section of the British Association, which was held this year at Oxford. His Presidential Address, "Some Economic Aspects of Inheritance," is printed above, and as the result of the discussion of various issues raised, a Committee of the Section was appointed to draft a scheme of inquiry into problems of taxation of wealth. A welcome speaker in the discussion was Prof. Rignano.

The second day was devoted to two papers on Labour questions by Sir Lynden Macassey and Prof. Clay. These both dealt in a sense with the problem of "authority" in that Sir Lynden presented an argument on behalf of enforced membership of Trade Unions of employers and wage-earners, and of agreements enforceable at law, with penalties for breach; while Prof. Clay made a careful analysis of the recent history and effects of the redistribution which is due to the increasing expenditure on social schemes.

Agricultural questions were discussed in papers by Sir Henry Rew on "The Effects of Land Tenure Systems on Production," and in the Presidential Address of Sir Daniel Hall to the Agricultural and Economic Sections in a Joint Session. In raising afresh the problem of food supply and population, Sir Daniel introduced a new index—the number of acres required to feed a unit of white population. By historical and other tests he inferred this to be about 2½ acres. It was pointed out in the discussion that the figure for 1800 was 2·6 acres. As expansion, in Sir Daniel's view, is approaching its limit, the higher costs of more intensive working of land present an urgent problem to technical agricultural research. The discussion was opened on behalf of the Economic Section by Prof. Macgregor, and was continued by Lord Bledisloe, Sir T. H. Middleton, Mr. Orwin, and Dr. Marie Stopes.

In his paper on "The First Year of the Gold Standard" Professor Gregory discussed the advantages of adopting, as a rate at which to stabilise currency, the internal or external

value, which might again have a cross division into the higher or lower value, giving four cases. The application to this country was statistically examined. Over the treatment of this question by his former pupil, Dr. Cannan presided with a just and obvious pleasure.

In Mr. Bowie's paper on "Coal and Copartnership" there was offered as an alternative to the present system of proceeds-sharing, a method of division which would have a better claim to the title of copartnership. Mr. A. W. Flux's concluding paper on "British Export Industries" examined the changes in the overseas markets of our leading export industries, especially with reference to changes in the nature of the products taken by individual markets or by overseas markets as a whole.

The attendances were unusually large, and the meeting in every way successful.

D. H. M.

Official Papers

Report of the Imperial Economic Committee on Marketing and Preparing for Market of Food-stuffs produced in the Overseas Parts of the Empire. Third Report: Fruit. (Cmd. 2658.) 4*s.* 6*d.*

In the opinion of the Committee, most of the fruit derived from foreign countries, with the exception of two classes, might at no very distant date be obtained from British sources. They state that, if this result were brought about, it would increase the foreign trade of Great Britain, for the reason that the Empire countries which might send us fruit buy a much larger value, per head of their population, of our exports than do foreign countries; an argument which all would not accept.

In considering how the fruit industries of the Empire may be defended and developed, the Committee find themselves prevented from the suggestion of customs preference, or schemes of embargo or licence, by existing conditions. They therefore repeat the proposal of their First Report—that the consumer should be induced to develop a voluntary preference. This implies an Imperial organisation of the producers, and the mobilisation of the consumer at home. Great importance is attached to the representation in the U.K. of the organised producers. As "the cost of distribution in the U.K. is about equal to the whole cost of growing, carrying and handling up to, and inclusive of, the primary sale in the U.K.," there is an

important aspect of marketing which it is for the Food Council to consider. The consumer's voluntary preference must be obtained through a campaign of educative publicity and research, to be placed in the hands of an Executive Commission, as indicated in the Committee's First Report.

D. H. M.

Report on an Inquiry into the Personal Circumstances and Industrial History of 3331 *Boys and* 2701 *Girls registered for Employment at Employment Exchanges and Juvenile Employment Bureaux.* (Ministry of Labour. 1926. Price 1*s.* 9*d.*)

THE Inquiry relates to June and July 1925, the sample taken being one in ten of the boys and girls on the Live Register of the Exchanges and Bureaux, who were interviewed by the local officers in charge. The results are summarised under the heads of Physical Characteristics and Appearance, Home Circumstances, School Career, First Situation (how soon obtained, how obtained, whether casual or giving opportunities for training, how long held), Industrial History (record of all situations held), Employability (probability of entering in normal times into trades or professions requiring training, into steady occupations, or into any job available). The general conclusion indicates a problem "of the first magnitude" as regards the unsatisfactory nature of the employment sought, and "the high proportion of situations which offered few or no prospects of training for a definite occupation."

D. H. M.

DUTCH OFFICIAL PAPERS

Staatscommissie Voor Het Muntwezen, Advies van de Staatscommissie, ingesteld bij Koninklijk Besluit van 6 *April,* 1921. (Report of the Royal Commission on currency in the Netherlands and in the Dutch East Indies.) ('s Gravenhage: Landsdrukkerij. 1926. Pp. 142 + 41 + 113.)

THE principal recommendations of the Commission are:

1. The amount up to which the silver coins of Fl. 1.0 and Fl. 2.50 are legal tender in the Netherlands to be fixed at Fl. 100.0; the silver coin of Fl. 0.50 to be abolished in the Netherlands.

2. The laws reducing the fineness of the silver coins of Fl. 0.50, Fl. 1.0 and Fl. 2.50 from ·945 to ·720 to be revoked.

3. If the existing currency notes (zilverbons) are to be maintained, they should be fully covered by gold or gold bills of exchange.

4. In future the silver coins of the home country and the colonies should bear different stamps.

If these proposals are adopted, the so-called "limping" standard will be replaced by a full and effective gold standard. Hitherto the Dutch token coins, which cannot be minted by private persons, have been legal tender up to any amount. As the Commission points out, this is due to the fact that in the early seventies the introduction of the gold standard in neighbouring countries compelled the Netherlands to abandon the silver standard hitherto in force. Owing to the fact that their currency thus consisted almost wholly of silver, the limping standard was accepted in 1875 as an emergency measure. Since then, however, owing to the increase of the population, the intensification of economic life, and, above all, the absorption of great quantities of silver by the Dutch Indies, the surplus of silver has wholly disappeared from circulation and from the holdings of the Netherlands Bank.

The Commission limits to the Netherlands its proposal to accept the gold standard. For the Dutch Indies it thinks the existing system the most practical for the time being.

The monetary systems of the home country and of the colonies are to be entirely separated from one another, except in so far as regards the gold coins, which they will retain in common. Up to now they have also had the same silver coins of Fl. 0.50, Fl. 1.0, and Fl. 2.50. The danger of this state of affairs is that silver can be used as a means of remittance between Holland and her colonies, thus causing an unnecessary surplus in the receiving and a shortage in the remitting territory, which leads to difficulties in daily payments effected in silver. If the Netherlands adopt the gold standard, it will be found in practice still more desirable to separate the monetary systems of the home country from that of the colonies. As the Commission points out, this separation is also right theoretically. The home country and the colonies are economically and geographically separate units. The values of their currencies are governed by independent sets of causes; in fact, Telegraphic Transfers on Batavia have a standing quotation in Amsterdam, which quotation, especially during the war, has sometimes shown sensible deviations from parity. Both territories have a central bank, paper money and small coins of their own; it is reasonable to go a step further and to break a chain,

which, as the history of different monetary unions proves, often has undesirable consequences.

Meanwhile the immediate and practical significance of the question has diminished since the exchange rate Amsterdam-Batavia has again (in March 1925) reached parity, and since then has occasionally even exceeded it. In the future, too, there is little danger that the two central banks, the Netherlands Bank and the Java Bank, acting in collaboration, will not be able to maintain this parity.

Hence the Commission does not propose an immediate and complete reminting of the Indian silver currency, but recommends that the separate Indian coinage should be proceeded with gradually according to the demand for new coins arising out of the wear and tear of the circulation.

Hitherto the Netherlands Bank could pay its notes either in silver or in gold. The latter metal was reserved for foreign payments according to the Declaration of 1903 (cited on page 324 of this JOURNAL, June 1926), and only small quantities of gold coins of Fl. 10.0 were brought into internal circulation. If silver coins ceased to be legal tender the Netherlands Bank would be obliged to pay its notes in gold coins. The Commission proposes that the cost of mintage of gold coins shall in future be borne by the State and that the Netherlands Bank should be authorised temporarily to pay in bullion, both measures being intended to protect the Bank's stock of minted gold.

G. W. J. BRUINS

Jaarcyfers Voor Nederland, 1924–25. (Statistical abstract of the Netherlands.) ('s Gravenhage: Centraal Bureau voor de Statistiek. Pp. lvii + 353.) [Dutch and French texts.]

Verslag Van de Nederlandsche Bank, 1925–1926, *uitgebracht* 16 *Juni*, 1926. (Report of the Netherlands Bank.) [Will also be published in English.] (Amsterdam: Blikman en Satorius. 1926. Pp. 74.)

OBITUARY

Knut Wicksell (1851–1926)

The old oaks fall. Marshall not long ago, then Edgeworth, and now Wicksell.

Johan Gustaf Knut Wicksell was born on the 20th of December, 1851. After three years' studies in Uppsala he won his first degree, *candidatus philosophiæ*, in 1872. His later studies were interrupted by school teaching in Uppsala, partly in a religious college. He took an active part in student activities, being at one time president of the Students' Association; he also wrote a humorous play in the musical comedy style. At the same time his interests in social problems such as the drink question and the population problem were growing and were soon predominant. This was even more the case after a religious crisis which left him for the rest of his life a violent opponent of the Christian religion, at least in its orthodox form. He became interested above all in the population question, where he took a firm stand in favour of Neo-Malthusianism from the point of view of sexual morality and social welfare. To his last day he remained an ardent supporter and advocate of this belief, although the original violence of his attitude was abated as his standpoint became more generally understood.

In 1885 Wicksell received his second degree, *licentiatus philosophiæ*, in Mathematics.[1] By that time his interest in social and ethical problems had become so great that he decided to desert Mathematics for Economics. Thus, like Marshall and Edgeworth, he came to the study of Economics by way of Ethics and Mathematics, and embarked on that study somewhat late, having reached his thirty-fifth year. The next five years were spent in England, Germany, Austria and France. Although he learnt much from economists in all these countries, I think there can be no doubt that the Austrian influence was paramount.

Not until 1895 did he obtain his doctor's degree in Economics. And even then his university studies were not finished. As the chairs in Political Economy in Sweden belonged to the Faculties of Law, he had to spend a great part of the next four years in

[1] Is it a mere chance that so many leaders in economic thought have been students of Mathematics in early life? To take a few examples I mention Cassel and Wicksell in Sweden, Marshall and Keynes in England, Fisher in U.S.A., Walràs in France and Pareto in Italy.

the study of Law to make himself eligible for a professorship. From the year 1900 he served as assistant professor in Political Economy in Lund University, and from 1904 as full professor. In 1916 he retired and moved to Stocksund, a villa-town in the "skärgård," close to Stockholm. There he lived the remaining ten years. Wicksell had married Anna Bugge, probably the most prominent woman lawyer in Sweden and Swedish representative at the League of Nation's meetings in Geneva. Their son, Dr. S. D. Wicksell, is a lecturer in mathematical statistics in Lund University.

In 1911 Wicksell became Doctor of Law, *honoris causâ*, in the Kristiania University, and in 1923 Honorary member of the American Economic Association.

Wicksell's first important work was *Ueber Wert, Kapital und Rente*, 1893. Here a theory of value and distribution is built up through a consistent and skilful use of the marginal analysis. In the marginal utility theory of value this analysis had already been used by Menger, Jevons and Walràs. Curiously enough, however, none of these writers had extended it to the study of the prices of the factors of production, *i.e.*, to the theory of distribution. About 1890 Marshall, J. B. Clark, Wicksell and possibly some of the Italian writers published or constructed their marginal productivity theory more or less independently of each other and of earlier writers. Like Marshall, Wicksell explicitly states that he owed a great deal to the genius of v. Thünen.

A second characteristic of Wicksell's book is his stressing of the mutual dependence of all elements in the price mechanism. Here he follows Walràs, who may be said to be the founder of the modern price theory. It is true that the same idea was worked out by Marshall independently of Walràs,[1] but Marshall's book was not published until almost two decades after Walràs', and his way of writing is such as to make it difficult to obtain the bird's-eye view that alone can show clearly the nature of the relations between the prices of commodities and of the factors of production.

If the book is noteworthy from these two points of view, it has yet another and greater claim to attention. Wicksell simplified and modified Böhm-Bawerk's theory of interest so as to take into account not only labour and capital but also land. Furthermore, the interest theory is made a part of the equilibrium system of mutual dependence, in the form of a marginal productivity

[1] Irving Fisher also seems to have worked it out for himself.

theory. Until the element of time was thus given its due place in the system of equations, the price mechanism was not adequately explained. As a matter of fact, the nature of the relation between wages, rent and interest cannot be made clear as long as capital is treated in much the same way as the other factors of production, in spite of its special position and characteristics. In this respect not only contemporary but also much later equilibrium theories are singularly deficient.

A fuller presentation of the theory of value and distribution along the same lines is given in Wicksell's *Vorlesungen über Nationalökonomie auf Grundlage des Marginalprinzips*, I, Jena, 1913.[1] Wicksell's numerous papers in Swedish and other journals cannot be discussed here. His critical review, "Professor Cassel's Economic System," in the *Ekonomisk Tidskrift*, 1919, should, however, be mentioned. Although Wicksell is in my opinion mistaken on several points, I have little doubt that his criticism of Cassel's work is by far the most profound I have seen.

In 1896 Wicksell published his *Finanztheoretische Untersuchungen*. Perhaps nowhere is his originality more conspicuous than here. On the other hand, his lack of contact with the actual world is only too apparent. This does not, however, deprive the book of great value; to mature students it is more stimulating than most treatises on Public Finance. Wicksell always maintained a lively interest in this subject. His zeal for social justice made him a strong opponent of the heavy indirect taxation which existed in Sweden and most other protectionist countries before the war.

The third field in which Wicksell had been working ever since the beginning of his economic studies, and where he has left his mark, is monetary theory. Already in 1897 a paper on "Der Bankzins als Regulator der Warenpreise" appeared in the *Jahrbücher für Nationalökonomie*, followed a year later by a book entitled: *Geldzins und Güterpreise. Eine Studie über die den Tauschwert des Geldes bestimmenden Ursachen.* To understand the importance of this book it is necessary to view it against the general background of monetary theory in the 'nineties. The victory of the gold standard and the gold exchange standard over the silver standard and bimetallism coloured the theoretical discussions. Controversies along the lines of the quantity theory of money were rare. As usual during times of relatively insignificant disturbances, the quantity theory was in most countries

[1] Swedish editions 1901 and 1911. The German edition has long been out of print, but a new one will appear this year.

losing ground, giving place to various "commodity value theories" like Laughlin's or Lexis'. Contributory to this result was the growing importance of means of payments created by private banks. Although the old controversy between the banking and the currency theory had died out, the discussion of the power of the banks meant in reality a return to it. Could they govern the money and credit market or only register its fluctuations?

The principal weakness of this discussion was the lack of a firm basis in an analysis of discount policy. Wicksell found this basis in the relation between the real or normal rate of interest, as explained in the theory of distribution, and the discount rate as described in banking analysis. A close relation there must be, for is not the current discount rate ultimately an expression of the real rate of interest? This idea is so exceedingly simple and close at hand, that one cannot escape asking how it could have been overlooked until then.

The answer is, that it had not been completely overlooked. Marshall, in his evidence before the Gold and Silver Commission in 1886, suggests something in the same direction by pointing out that during times of inflation or deflation the nominal is not the same as the real rate of interest, and that this must be considered when fixing the bank rate. In *Appreciation and Interest* Irving Fisher had got hold of Marshall's idea. In fact, the classical writers knew it already. Compare *e.g.* Ricardo's *Principles*, chap. xxvii. p. 220 (McCulloch's edition, 1852), and earlier still H. Thornton, *An Enquiry into the Nature and Effects of the Paper Credit of Great Britain*, 1802, pp. 283–91. This last book contains a remarkably clear statement, as valuable perhaps as Marshall's nearly a century later.

However, like the classics, both Marshall and Fisher failed to develop the idea further. So it happened, as many times before in economic science, that a fundamental problem was left without due attention, although its existence had been known to first-rate economists. In such cases I think the principal credit is due to the man who sees its importance and makes it the subject of a thorough analysis. It should also be observed, that Wicksell analyses not so much the influence of changes in the value of money on the " profit rate " and its relation to the discount rate, as the relation between variations in the normal rate of interest, determined by the demand for and supply of the factors of production, and the discount rate. Thus his analysis is more general and deeper than Marshall's. For these two reasons we are fully justified in claiming Wicksell as the originator of the modern

theory of discount policy, which constitutes the chief advance of monetary theory since Ricardo.

To what extent *Geldzins und Güterpreise* has influenced thought in Anglo-Saxon economics it is impossible for me to say. I have always been surprised to find that English writers such as Hawtrey, Bellerby and Keynes did not know this book. In his memorial to Marshall the latter expresses his astonishment that Marshall's idea had not been further developed: "It was an odd state of affairs that one of the most fundamental parts of monetary theory should, for about a quarter of a century, have been available to students nowhere except embedded in the form of question and answer before a Government Commission interested in a transitory practical problem." If this surprise is justified, from Mr. Keynes' standpoint, what shall we say of the surprise felt in many quarters that a very full and comprehensive analysis has remained practically unknown among writers on monetary problems in Great Britain, only because it happened to be published in German? It should be added that Wicksell read a paper on "The Influence of the Rate of Interest on Prices" before the economic section of the British Association in 1906, and that this paper [1] was printed in the ECONOMIC JOURNAL in the following year.

A revised and partly rewritten presentation of the doctrine is to be found in *Vorlesungen über Nationalökonomie: II. Geld und Kredit*, 1922 (Swedish editions 1906 and 1915). This book went out of print within less than a year, while *Geldzins und Güterpreise* could still be obtained.

Although Wicksell had, since the publication of the latter, been working off and on at the problem of discount policy—contributing several papers thereon to the *Ekonomisk Tidskrift* [2]—one cannot say that the doctrine had been substantially changed or much improved. I refer the interested reader to the second edition of *Vorlesungen*, which will appear this year. Very likely he will feel much the same as the boy who read *Hamlet* for the first time; he did not think much of it—it was so full of quotations.

It is very characteristic of Wicksell that he was always taking

[1] I do not think, however, that this paper does Wicksell full justice. His style, usually vigorous and stimulating, is here rather heavy. Wicksell never mastered the English language so well as the German. He naturally refers interested readers to *Geldzins* and to his paper of 1897. Fisher, in his *Purchasing Power of Money*, 1911, makes a reference to the paper but not to the book. Later American writers follow his example in that respect, as far as I know.

[2] *E.g.*, "The Stabilisation of the Value of Money as a Means to Prevent Crisis." 1908.

up the most fundamental problems and subjecting his own solutions to repeated analysis, refusing to take anything for granted. The last paper he wrote (*Ekonomisk Tidskrift*, 1925) runs absolutely counter to the accepted monetary doctrine, which he had himself been advocating for so long. He shows the ambiguity of the term "purchasing power" and seeks to show that causes on the "commodity side" may have been much more potent in causing a rise in prices during the war than is commonly assumed. Thus, he goes far towards defending the practical business man's view that the root of the matter was the abnormal scarcity of goods.

Even the doctrine of the relation between the real rate of interest and the money rate was to Wicksell nothing but a hypothesis. When I had ventured to stress the importance of this doctrine in a paper on Swedish economics in the Brentano *Festschrift*, Wicksell expressed the opinion to a common friend of ours that I had made myself guilty of exaggeration, as his doctrine was of doubtful validity. To which the obvious reply seems to be, that although that may be so, it is the very same hypothesis which has been in the forefront of monetary discussion during the last decade and is likely to remain there for some time to come.

The space at my disposal does not allow me to enter upon a discussion of Wicksell's views on the best arrangement of the world's monetary system. Ever since the 'nineties [1] he was an insistent advocate of a paper standard, regulated after index-numbers through international co-operation between the central banks in their discount policy in order to guarantee as far as possible stable foreign exchanges. He read a paper on that subject before the Economic Society of Stockholm in 1898, and another one in 1925 [2]; on the last occasion he could point out that although he was now taking part in a lively international discussion, yet he was advocating exactly the same ideas as twenty-seven years earlier.

Here again it is interesting to see that Wicksell's views were not far from Marshall's, and to state that while the latter turned to other questions, Wicksell persevered, undisturbed by the smile he evoked among the so-called practical business men. Wicksell always lacked contact with the business world. It was his strength that he admitted this to himself and went his own way, convinced that one day his lofty theoretical speculations might turn

[1] See *Geldzins und Güterpreise*.

[2] See the review of the contents of the *Ekonomisk Tidskrift* in the March number of the ECONOMIC JOURNAL this year.

out to be important contributions to the solution of eminently practical problems.

Comparing the merits of Wicksell's writings with his slight influence on the development of monetary theory *before the war*, I cannot but feel that he committed one unpardonable error, that of being two decades ahead of his time. Yet, as far as I know, he never uttered a word of complaint that his contributions to economics were so little noticed.[1] Nevertheless it must have been a source of some satisfaction to him that after the publication of the German edition of his *Vorlesungen:* II. *Geld und Kredit*, in 1922, German and Austrian periodicals have been full of references to his monetary writings.[2] Although *Geldzins und Güterpreize* had exercised some influence even before the war, it is clear that the time had not been ripe for his ideas until lately.

As an economist Wicksell lacked one important quality, that of being able to get into contact with what is generally called "practical" economics. From that point of view I think that his Austrian training was unfortunate. When later in life he tried to make up what he had neglected, it seems to have been too late. Of this, as I have already remarked, he was well aware himself. I remember the speech on the future of economics which he gave on his seventieth birthday at a dinner arranged by the Political Economy Club in Stockholm. It was pathetic to hear him express his envy of those who now started economic studies with all the advantages of having at their disposal a growing mass of factual material about what was actually happening. Himself an economist who had learnt from all schools of economic thought, except the German historical school, his advice turned out to be: Study history, study the actual development of economic life!

If this limitation was a serious drawback, Wicksell had most

[1] He constantly expressed his surprise, however, that Walràs found so little attention in English and American economic science. After all, Walràs was the first to give a substantially correct picture of the price mechanism and the causal relations between its various elements. He has exercised great influence not only on the Italian school of economists, *e.g.* Pareto, Pantaleoni and Barone, but also on Austrians like Schumpeter and Swedes like Wicksell and Cassel. That Walràs, while he lived, found little recognition in his own country, France, is less surprising, as the general tendency in French economics of that time was hostile towards the exact analysis. There are signs that this tendency is changing, *e.g.* the flow of books that "popularise" Walràs' work. An excellent example of this is Antonelli, *Principes d'économie pure*, Paris, 1914.

[2] Thereby attention has been drawn also to his theory of distribution, especially his interest theory. I think it is safe to say that his influence also on the development of this branch of theory in Germany and Austria is growing. Compare Amonn, "Der Stand der reinen Theorie" in Brentano *Festschrift*, 1925, p. 285 ff.

of the other qualities that make for success in scientific work. His wealth of new ideas was as astonishing as the ease with which he could think along lines running across all accepted high-roads of economic science. A good example of this is his *Finanztheoretische Untersuchungen*. Speaking of this book in particular, but also of Wicksell's writings in general, a well-known Swedish economist remarked to me: "Wicksell is almost never entirely right; in fact, he is not seldom almost entirely wrong; but you will find that he has dug a little deeper than anybody else in almost every problem at which he has been working."

He was extremely widely read, following fairly regularly not only Scandinavian, English, French, and German, but also Italian and Dutch periodicals. To show the width of his intellectual interest I should also mention that he was a great admirer of the classical languages. One of the first things I ever heard about him, was that, during his last years at Lund, he used to read Cicero and other Latin authors in bed before going to sleep.

As a speaker Wicksell had many merits, above all a delightful humour of a kind essentially his own. He had a picturesque style of speaking singularly different from his way of writing. But his delight in paradoxical phrases was perhaps too great and apt to diminish the effect of a very persuasive argument.

What made Wicksell so popular with his colleagues was, amongst other things, his extreme modesty. He would attend regularly the meetings of the Political Economy Club in Stockholm and discuss with its younger members as with people whose advice he sought. When a problem seemed unusually difficult he would shake his head with the long grey curls and exclaim: "I would give much to be able to see clearly in this."

Another characteristic was his religious bent. His uncompromising attitude towards Christianity sprang from the same disposition of character which in early life had made him an ardent Christian, and he was all through his life a man with the highest moral standards. People were often surprised to find this modest man with the tender and childlike expression in his beautiful eyes as a violent fighter against what he thought wrong. He once went so far as to incur one month's imprisonment for violently offending in public against certain Christian beliefs. His answer to this was to write in prison a masterly little book on population—the subject that was always closest to his heart and had been the battle-ground of most of his early fights with accepted doctrines—and to sign the preface: "Ystad Prison, October 1909." In the 'eighties, the days of anti-emigration propaganda, he had

fought and suffered for Neo-Malthusian ideas, calling down much wrath upon himself from " nice people." Already in 1909 the tide had begun to turn, and he lived to see the population problem recognised as perhaps the most important social problem of all.

If his uncompromising attitude caused him much suffering, his battles must also have given him great satisfaction. He liked fighting, especially when it gave him an opportunity to " épater les bourgeois." Once in the Students' Union, at a protest meeting against the dissolution of the union with Norway in 1905, he mounted the platform and started telling the audience, in his soft melodious voice, about a curious dream. " I dreamt," he said, " that Russia asked Sweden to tear down all fortifications along the northern frontier." More he was not allowed to say, before the tumult turned loose, for everybody understood that he was protesting against the condition made by Sweden, that the Norwegian fortifications should be destroyed. In spite of all the shouting Wicksell remained quietly on the platform, and when, after about five minutes, someone started to sing the National Anthem, Wicksell took the lead. There was nothing to do but to dissolve the meeting.

Certainly, even people who were opposed to his views and often disliked his methods had to recognise his sincerity, courage and complete disregard of his own interests. In the last five years he took no active part in the burning conflicts of the day, and few felt anything but veneration and admiration for his character and genius.

BERTIL OHLIN

SHORT LIST OF KNUT WICKSELL'S PRINCIPAL CONTRIBUTIONS TO PERIODICALS

Ekonomisk Tidskrift.

1903. A Dark Point in Monetary Theory.
1904. The Monetary Problem of the Future.
1904. Aims and Methods in Economics.
1907. Knapp's Monetary Theory.
1908. The Stabilisation of the Value of Money as a Means to Prevent Crisis.
1909. The Rate of Interest and Commodity Prices.
1913. Regulation of the Value of Money.
1915. The Foreign Exchanges and the Bank Rate.
1916. The "Critical Point" in the Law of Decreasing Return in Agriculture.
1919. The Riddle of the Foreign Exchanges.

1919. Professor Cassel's Economic System.
1921. The Income Concept from a Taxation Point of View.
1923. Real Capital and the Rate of Interest.
1924. Protection and Free Trade.
1925. A School Case in the Tariff Question.
1925. Mathematical Economics.

Foreign Periodicals.

Zeitschrift f. die gesamte Staatswiss, 1890. "Überproduktion—oder Überbevölkerung."
1909. "Zur Verteidigung der Grenznutzenlehre."
Jahrbücher f. Nationalökonomie, 1892. "Kapitalzins und Arbeitslohn."
1897. "Der Bankzins als Regulator der Wahrenpreise."
Zeitschrift f. Volkswirtschaft, 1897 and 1899. Review of V. Pareto, "Cours d'économie politique."
1913. Review of Vilfredo Pareto's "Manuel d'économie politique."
1914. Review of L. v. Mises, "Theorie des Geldes und der Umlaufsmittel."
Thünen-Archiv, 1909. "Über einige Fehlerquellen bei Verifikation der Bodengesetzes."
Economic Journal, 1907. "The Influence of the Rate of Interest on Prices."
Archiv. f. Sozialwiss. u. Sozialpolitik, 1916. "Hinauf mit den Bankraten."
Quarterly Journal of Economics, 1918. "International Freights and Prices."

G. F. Knapp

The death of Professor Knapp on February 20th has removed from the German scientific world one of the most striking figures of what may be termed the third epoch of political economy in Germany—the first being the "cameralistic," the best-known names of which were Seckendorff and Justi; the second corresponding to the classic period in England and culminating in such works as those of Thünen and Hermann,—the outstanding features of which were "Sozialpolitik" and "Historical Method." Along with Schmoller, Wagner, Bücher, Brentano, although different from everyone of them in many ways, George Frederic Knapp will always be associated with all its merits and some of its shortcomings.

Few words suffice for his uneventful life. He was born on March 7th, 1842, in Giessen, the son of a professor and author of a very successful textbook on Technology. Studying in Munich, Berlin and Göttingen, he made himself a statistician, quite

unusually equipped, for that time, in mathematics. In 1867 he became head of the Statistical Bureau of the Municipality of Leipsic and earned, during the following years, much deserved praise by the efficiency of his management of that office, amply proved by the excellence of what the bureau published under him. In 1869 he was made "extraordinary" professor—a title but imperfectly equivalent to "assistant" professor—at the University of Leipsic, whence he was called to Strassbourg in 1874 and promoted to a full professorship. There he remained until he retired from his chair—really longer still, until 1919, when he had to leave what had become a foreign town.

Whatever he did was done wholeheartedly with all the concentration of a character of singular strength. To trace the outline of the work of his life is therefore much easier than this task usually is in the case of a man of so much mental vitality. Until 1874 he was—if we may pass by two papers of less importance, his doctoral thesis on Thünen and one on questions of taxation—Statistician only. Apart from his practical work in this field he made contributions to the theory of the subject, some of which, named below,[1] may repay perusal even now. It is only the standard he has set for himself elsewhere which prevents us from dwelling on the honourable position due to him—if not in the first rank, at least near to it—on that account alone.

But as an historian of economic life and as an economist of "institutional" complexion he was truly great. His two volumes, published in 1887, on the emancipation of peasants and the origin of the rural worker in the older parts of Prussia (*Bauernbefreiung und der Ursprung der Landarbeiter in den ältern teilen Preussens*) are his masterpiece and the standard work in the matter. They have helped to mould the minds of many followers and created what almost amounts to a special branch of our science. The reason for this does not lie in any new historical technique nor in the mastering of any material of special difficulty. In these respects Knapp was not equal to such men as Meitzen or Hanssen. But he had other qualities, beyond comparison higher and rarer. He had a clear, I should like to say a passionate, vision of the essence of things, which pierced far below the surface. He *saw* the processes and

[1] Über die Ermittlung der Sterblichkeit aus den Aufzeichnungen der Bevölkerungsstatistik, 1868. Die neueren Ansichten über Moral statistik, 1871. Theorie des Bevölkerungswechsels: Abhandlungen zur angewandten Mathematik, 1874.

problems of history and grasped them more firmly than most men do the facts surrounding them. And he based his historical analysis on a comprehensive knowledge of present-day facts. The sources of such sketches as his *Landarbeiter in Knechtschaft und Freiheit*, 1891, and his *Grundherrschaft und Rittergut*, 1897, are only in part historical; partly they flow from a study of what German landowners and their labourers, their mentality and methods and their lives really are to-day. The quality I am striving to define goes far towards making the historian; but it is everything for him, who does not look for the romance, but for the problems of history.

Like the farmer, who by changing his crops conserves the fertility of his soil, Knapp, about 1895, dropped this work and took up, once more, an entirely different set of problems. And, in some respects, it was then that he made his most successful hit. His *Staatliche Theorie des Geldes*, recently translated into English under the auspices of the Royal Economic Society, was published for the first time in 1905. It undoubtedly raised him to international fame. A host of disciples gathered round it, and admirers and opponents contributed equally—the latter by the wrath of their attacks not less than the former by their eulogies—towards a striking success. Still, much as there is to admire in the book, the largeness of conception, the independence of execution, the freshness of its style, it is impossible to deny that in handling what are fundamentally questions of economic theory it went wrong, and that its influence on monetary science in Germany has been, in the main, an unfortunate one. But if it shows that economic theory, whatever its shortcomings may be, cannot safely be despised; it also serves to show, once more, the strength of this remarkable man, who convinced so many of what he could not prove and often fascinated even where he did not convince.

J. SCHUMPETER.

SIR THOMAS HENRY ELLIOTT, BART., K.C.B.

BY the death in Rome last June of Sir Thomas Elliott, at the age of seventy-one, the Royal Economic Society has lost an original founder, who was also Honorary Secretary from the start in 1890 until 1924. Four years ago, when, after an interval, we met in Oxford, he commented to the writer of these lines on what he thought was a remarkable, and perhaps unique, experience in the history of learned institutions—namely, that at that

date the three Honorary Secretaries of the Economic Society were the same individuals as those elected thirty years before. Now one of them alone remains in that capacity, although another is still with us, lately raised to a different status. But Elliott, who resigned a few years back, is dead. The honourable office, a member of the Council hinted recently, may not have been designed to be more than a titular sinecure, but I can vouch for the fact that in the earlier days of its infancy and comparative infirmity Elliott was one of the most strenuous, and certainly not the least useful, of supporters of the Society, and, some time afterwards, the unfailing tact, sagacious sense, correct demeanour and cool temper, which were perhaps his most outstanding characteristics, proved of inestimable service in handling with deft complete success an awkward, unpleasant situation that arose. I do not think indeed that he ever contributed, by article, review or note, to the JOURNAL, and, searching the three decennial indexes, I have failed to find his name under any heading. His lively and informed acquaintance with economics was exhibited in other ways than writing. I was for many years linked also with him as a secretary of Section F of the British Association, and he seemed to me a model Recorder. But wherever, in fact, he could advance the cause of economic study, he judiciously and effectively intervened.

Amongst other examples I would mention my belief that to him was largely due the establishment of that International Institute of Agriculture with which he was felicitously connected at the last. I remember vividly the visit one Sunday in Oxford of Mr. Lubin, the American originator of the project, who came to me with an introduction from Elliott. He expressed the fond hope, doomed to disappointment, that my "seminar" would "work out" some of the detailed problems confronting him, as he conceived it, in the execution of his aim. He had too at that time the vaunting expectation, destined, I suspect, not to be realised in the sequel, that speculation in wheat would be stopped by the periodical announcement, through the Institute, of reports and estimates of the growing crops. But, although this forceful Yankee, I confess, appeared then to me to have the extravagant enthusiasm of the crank, actually he persuaded the King of Italy to countenance his plan, and, with this initial impulse gained, the support of other Governments was secured. I think that Elliott's discretion, pains and influence must have been no small factor in removing obstacles in the path, and the Institute came into existence and flourishes. I know

that nothing could have been more congenial to my friend than to spend his years, after retirement from the Civil Service here, in consolidating the work of the Institute amid the agreeable cosmopolitan society and unrivalled ancient and mediæval environment of the "Eternal City." He told me, when I saw him last in a nursing home in Hove in the autumn of 1925, recovering, as we hoped, from a serious operation, that he thoroughly enjoyed life abroad and probably would never care to settle in England again. He managed afterwards to get back to Rome, and, later, I had an encouraging letter from him there, written from a hotel from which he looked across to the Janiculum. His father had lived in Paris; and he himself was a facile indefatigable student of French literature.

His life however was passed in the public service of his country. Entering the Inland Revenue in 1872, he retired as Deputy-Master of the Mint in 1917. Of the forty-five years, twenty-one were occupied by his secretaryship of the newly established Board of Agriculture. At one time, he informed me, he had never failed to hear the Budget introduced. He seemed to me the "beau idéal" of a Civil servant. It is true that as Treasurer of my College I remember that before his advent to the secretaryship we had been wont, with the preceding body of Inclosure, Copyhold and Land Commissioners, to get through applications for orders for improvement loans with astonishing expedition (the report advising the same of a very able and adroit land-agent in Oxford being generally taken at once without demur), and that when Elliott came the usual formula was introduced of bare acknowledgment of the receipt of the request, followed by some more or less lengthy delay, and perhaps by inquiry or objection, before the issue of the order. I also once heard a tale, which may have been fabulous, of the immense perturbation caused on a noted day by the singular departure from the office of the Inland Revenue one moment before or after the appointed proper hour of a very punctilious clerk in the person of my friend. But those were the defects of his qualities, and might be deemed merits rather than demerits in a Civil servant. On the other hand, it is no less conclusive proof of his ready tactfulness that, as he told me, when private secretary to Mr. Ritchie, bothered by applications for his autograph, and inclined to a peremptory negative, Elliott tendered the wise counsel, which was followed, of taking the slight trouble that would gain popularity and avoid offence; and his own advancement in the service was, I take it, due to the appreciation felt for his help by Mr. Ritchie and by others.

He would never give his chief away nor let him, if he could stop the process, give himself away. He was the soul of honour and the mirror of discretion. He won and retained the hearty admiration and zealous love of his subordinates no less unreservedly than the confidence of his superiors, for he never spared himself the scrupulous care and persistent industry which he required from colleagues and assistants. No public office was more methodically arranged or run more effectively than his. He knew all the necessary detail. He made no mistakes and passed no lapses.

The writer of the obituary in *The Times* observed truly that by nature and training he was a "boulevardier"—a lover of city life. He had not tastes, habits or experience disposing him to rural activities or rustic concerns. But he made the new Board of Agriculture a complete success. He was highly esteemed by Mr. Chaplin, who, whatever his other failings or virtues may have been, was a countryman to the finger-tips. And he won the full confidence and enthusiastic favour of farmers, a suspicious and phlegmatic class. They delighted to do him honour by election to their various societies, and, as the writer in *The Times* remarked, he was for many years the "Board" to them. They felt that in him they had an able, informed, honest "friend at court." In the end he may have seemed too slow to move to Ministers impatient for advertised reform. He told me—I hope that if it be a violation of confidence I may be excused, for it is typical—that, having once had an Irishman as private secretary, he would henceforth have none but Scots. But certainly in his day and generation he rendered great service to farming practice and agricultural economics, as he lent distinction and assistance to our own Society. I would add that, if he was, as I thought, the exemplar of an official, he was also, I gratefully feel, the most trustworthy, companionable and considerate of friends.

L. L. P.

PROFESSOR A. A. TSCHUPROW

WE much regret to announce the death of Professor A. A. Tschuprow on April 19 last in Geneva in his fifty-third year. Professor Tschuprow commenced his studies in the University of Moscow, and in 1902, at the opening of the great Polytechnical Institute of Petrograd, he became for some years Lecturer in Economic Statistics at that institution. But both early and late in life he was much connected with German Universities, and

many of his most important papers are published in German. He studied Economics and Statistics in Berlin and Strasbourg, and he prepared his first important work, entitled *Die Feldgemeinschaft*, as a pupil of Knapp. Since the Russian Revolution, after a stay in Scandinavia, Tschuprow had lived mainly in Dresden. It was his nature always to wish to avoid the ties of a professorial chair and to keep his mind entirely free for original work; and the Professorship at Prague, which he was driven by financial circumstances to accept near the end of his life, proved uncongenial. Regardless of poverty and the material difficulties of the post-war period, whether in Russia or in Germany, he always placed a very high price on complete intellectual independence. The result was that some of his most important papers on theoretical statistics belong to his years at Dresden. Earlier papers in *Biometrica* were followed up by a series in the *Nordisk Statistik Tidskrift*. His latest work, *Grundbegriffe und Grundprobleme der Korrelationstheorie*, was published by Teubner last year.

Passing from economics, mathematics and practical statistics to theoretical statistics, Tschuprow became one of the most important writers on the boundary line between statistical theory and the theory of Probability. He provided a link in some respects between the work of the English statisticians and that of the German and Russian schools. His early death is a severe loss to the subject.

J. M. K.

CURRENT TOPICS

THE following have been elected to membership of the Royal Economic Society:—

Adams, A. B.	Chao, N. T.	Handyside, W. L.
Arthur, A.	Crabtree, T. A.	Hansotia, P. C.
Austin, G. C.	Davies, Dr. Evan	Hettinger, A. J.
Bhalla, D. N.	Davies, G. R.	Hollinshead, E.
Birch, E. J.	Dreane, A. E. St. C.	Horvitch, J.
Bishen, Prof. G.	Dukes, J. H.	Johnston, W.
Blake, F. F.	Edkins, J. T.	Kay, H. B.
Bose, S. C.	Edwards, L.	Kehar, N. D.
Brabham, C. H.	Felton, W. J.	Lamb, D. A.
Bryans, G. H.	Fletcher, C. N.	Lee, H.
Bullick, E.	Fossum, P. R.	McKay, G. H.
Carrad, H. L.	Fraser, W.	Mason, E. S.
Chambers, S. P.	Gann, W. D.	Mitra, R. L K

Miyajima, Prof. T.	Sen, J.	Twiggs, H. S.
Ogden, A.	Shippard, F.	Venkateswaran, C. V.
Pearn, B. R.	Shivadasani, H. R.	Warden, A. W.
Plant, C. W.	Sinha, J. P. N.	White, H. P.
Purnachandrarao, V.	Stanners, H.	Williams, Prof. C. W.
Scott, G. H.	Sweet, R. S.	Williams, R. G.
Scott, L. G.	Thomas, W. S., Jnr.	

The following have compounded for life membership:

Aggarwal, K. D.	Fisher, Prof. A. G. B., Ph.D.
Ashley, C. A.	Foster, T. N.
Baring, Cecil.	Fraser, Whampoa.
Bowley, Prof. A. L., Sc.D., F.B.A.	Gray, W.
Brunner, C. T.	Lennard, R. V.
Droulias, Dr. C. A.	Miyajima, Prof. Tsunao.
Evans, Ifor L.	Shivadasani, H. R.

The following have been admitted to library membership:—Institute of Economics and Statistics, Moscow; Simmons College, Boston, U.S.A.; University of Maine, U.S.A.; Staatswissenschaftliches Seminar, Berlin University; Staatswissenschaftliches Seminar, Göttingen; Seminar Für Statistik und Versicherungswissenschaft, München.

We record with regret the deaths of the following Fellows of the Society:—

Beadle, C.	(elected 1890).
Elliott, Sir Thomas H., K.C.B.	(„ 1890).
Ogilvie, Col. Sir A. M., K.B.E., C.B.	(„ 1909).

OUR German Correspondent writes:—

A new learned society has been founded in Germany, the "Friedrich List Gesellschaft." Its members are mainly academic economists; its Council includes most of the scientific leaders; the German Academy and prominent business men contribute to its funds. The society proposes to advance the study of the history of economics by re-editing older works and publishing under its auspices researches in the History of Theory. At present it is about to prepare a new critical edition of the works of Friedrich List in seven volumes, which are to include even newspaper articles, speeches and letters, and will be supplemented by a new Life of List based on most careful researches and much new material. Besides aiming at absolute correctness of text, the edition will not only offer interesting matter hitherto inaccessible

—among other things, List's famous prize-essay, recently discovered in Paris—but also a thorough analysis of the views and ideas held by List at different periods of his life, of the influences which formed them, and of all personal and environmental facts relevant to them. Special arrangements have been made for an investigation into List's life in America and into what he wrote there. Neither care nor expense is being spared in order to insure completeness and accuracy.

ENGLISH students of the business cycle will be interested to hear of two recent events in that branch of Economics in Germany.

The one is the foundation, in Berlin, of a new institution for the statistical survey of the cycle, and the quantitative analysis of economic problems generally, the "Institut für Konjunkturforschung." It is the work of Prof. Wagemann, President of the German Statistical Office (Statistisches Reichsamt). Ample funds—the lack of which had so far prevented anything at all comparable with the American performances in this field—have been provided from private sources, the variety of which insures perfect independence, and the close co-operation with the Reichsamt enables the Institute to draw freely on the whole material collected by the latter and to command the services and the experience of its staff. Publication of results has been started by a very useful volume on the international business position in 1925, and the first number of a new periodical (*Vierteljahrshefte zur Konjunkturforschung*) has appeared since, together with a supplement containing a paper on the elimination of seasonal and secular fluctuations and a memorandum on the world's production of raw materials before and after the War. It is impossible to overrate the importance of this undertaking, of which great things may reasonably be expected and which for the first time brings German work in this department into line with what is being done in England and America.

The other "event" is this: All "barometers" have so far been constructed empirically, that is to say, they have been based simply on symptoms or combinations of symptoms, the relevance of which to the cycle is more or less a matter of general business experience. Such are, *e.g.*, the American barometers, including the Harvard index. Now, a German economic weekly, the "*Hamburger Wirtschaftsdienst*," has published, since the beginning of this year, a barometer based not on practical experience merely, but on a *theory*, viz. on Prof. Spiethoffs theory of the cycle. This

theory points to the consumption of pig iron (not the production, nor the price, but production plus imports minus exports) as the true and most sensitive index of the business position, and this index is being made use of in the barometer of the *Wirtschaftsdienst*. Prof. Spiethoff himself has observed the behaviour of his index as far back as 1870 and found it satisfactory for the whole of this time. So far, the experiment has indeed been strikingly successful, which fact, owing to the length of the period under consideration, fairly entitles it to the attention of fellow workers in this field. Any lasting success would, of course, mean much both for the practice of barometer-making and for the theory of the cycle.

PROFESSOR HEINRICH DIETZEL has retired, on reaching the age limit, from his chair of Political Economy at the University of Bonn. His successor is Professor Joseph Schumpeter.

PROFESSOR VON GOTTL-OTTLILIENFELD has accepted an invitation to the University of Berlin, succeeding Professor Sering, the well-known specialist in rural economics.

WE regret to announce the deaths of Professors Ludwig Pohle of Leipsic and Robert Zuckerkandl of Prague.

Professor Zuckerkandl was among the first adherents of the teaching of Karl Menger. He was born on December 3rd, 1856, became a lecturer (Privat-dozent) at the University of Vienna in 1886, and was called to the bar in Vienna in 1870. In 1894 he was appointed Professor of Political Economy at the University of Prague, which post he continued to fill up to the time of his death. German science owes to him many valuable contributions to questions of monetary and financial policy as well as to economic theory. His chief work was published in 1889, *Fur Theorie des Preises mit besonderer Berücksichtigung der geschichtlichen Entwicklung*. It met with considerable success at the time and has often been quoted to this day. To those who knew him, the sense of the loss of his abilities to science is accentuated by the memory of a most amiable, modest and upright man.

We also announce with much regret the death of Professor Friedrich Wieser on July 22 last shortly after his 75th birthday (July 10), on which day he had received an address from those collaborating in the *Festband*, shortly to appear in his honour.

OUR Japanese Correspondent writes :—

Bye-laws to revise the Factory Act were enacted by ordinance and came into force on July 1, the principal features being the widening of their field of application, shortening of hours from twelve to eleven, prohibition of " night work " after July 1, 1926, for female and juvenile workers, and special enactments for relief, dismissal, and rest after childbirth.

Problems which are now most hotly discussed are how to settle the conflict between landlords and tenants as regards rent reduction, when and how to lift the ban on gold exportation, and how to make good the result of the Chinese Customs Conference which was brought to a deadlock on July 3.

The works of Adam Smith, Malthus, Ricardo, Mill, and Marshall are widely read, and the translation of *The Wealth of Nations* by Professor Kiga of the Keio University has appeared as the first of a series (pages 1000, price 6.80 yen, publisher Iwanami), besides Marshall's *Principles of Economics* by Mr. K. Otsuka (Vol. 1, pages 435, price 3.50 yen, publisher Kaizosha). This must not be taken, however, as a proof of Japanese students being satisfied with translations only. As an indication of how original works in Japanese are in favour, such works as those of Mr. J. Inouye, ex-minister of Finance and Governor of the Bank of Japan, *After War Economy and Money Market of Japan* and *The International Monetary Relations of Japan* (pages 260 each, price 2 yen, publisher Iwanami), as well as *Epitome of Economic Policies*, by Professor Kawazu of the Imperial University (pages 285, price 2.50 yen, publisher Meizensha), must be mentioned.

The report of the death of Professor F. Y. Edgeworth was received with the deepest regret by students of economics throughout the country, especially by readers of the ECONOMIC JOURNAL. But it is felt as a consolation that he passed away just after his eighty-first birthday, leaving behind him so many instructive and valuable writings on economic subjects.

RECENT PERIODICALS AND NEW BOOKS

Economica (London School of Economics).

JUNE, 1926. *Professor Lilian Knowles.* SIR W. H. BEVERIDGE and GRAHAM WALLAS. *Adam Smith as an Economist.* E. CANNAN. *Monopoly and Business Stability.* F. LAVINGTON. *The Problem of Double Taxation.* F. ALLEMÈS. *The Population Problem in Japan.* G. C. ALLEN. *The Coal Mining Problem in Great Britain and the United States.* J. W. F. ROWE.

Journal of the Royal Statistical Society.

MARCH, 1926. *The Productivity of British and Danish Farming.* R. J. THOMPSON. *Some Administrative Aspects of the Rignano Scheme of Inheritance Taxation.* H. C. SCOTT. *Wholesale Prices in* 1925. Editor of the "Statist." *The Precision of Index Numbers.* A. L. BOWLEY.

MAY, 1926. *Mortality due to Motor Vehicles in England and Wales,* 1904–23. P. G. EDGE. *Statistics of British Shipping.* H. W. MACROSTY. *Fertility of Marriage and Population Growth.* L. R. CONNOR. *The Growth of Textile Businesses in the Oldham District* 1884–1924. T. S. ASHTON.

Sociological Review.

JULY, 1926. *Coal; Ways to Reconstruction. Regional Plans Way.* P. GEDDES. *Technologists' Way.* C. DESCH and D. HAY. *Sociologists' Way.* G. SANDEMAN. *The Background of Survival and Tendency as expressed in an Exhibition of Modern Ideas.* V. BRANFORD.

The Economic Record (Melbourne).

MAY, 1926. *The Settlement of Northern Australia.* G. L. WOOD. *The Australian Tariff and the Standard of Living.* F. C. BENHAM. *Papers on the Public Debt.* D. B. COPLAND, C. H. WICKENS, and H. J. EXLEY.

Quarterly Journal of Economics (Harvard).

MAY, 1926. *Stockholders' Voting Rights and the Centralisation of Voting Control.* W. H. STEVENS. *Partial Elasticity of Demand.* H. L. MOORE. *The Assignment of Activities to Areas in Urban Regions.* R. M. HAIG. *The Effects of Stock Speculation on the N.Y. Money Market.* J. H. ROGERS. *Jurisdictional Disputes of the Carpenters' Union.* E. E. CUMMINS. *The Sea Loan in Genoa in the Twelfth Century.* C. B. HOOVER.

American Economic Review.

MARCH, 1926. *Papers and Proceedings of 38th Annual Meeting of the American Economic Association.* (Especially papers on certain

aspects of the conception of real wages by A. H. HANSEN, PAUL H. DOUGLAS, and ALVIN JOHNSON.)

JUNE, 1926. *Interest Cost and the Business Cycle.* WALDO F. MITCHELL. *Public Utility Rate-making in New Jersey.* M. C. WALTERSDORF. *Progress and Problems of Australian Economics.* H. HEATON. *F. List in America.* W. NOTZ. *Interest on Enterprisers' Capital as a Cost in the Light of Economic Theory.* R. T. BYE.

Journal of Political Economy (Chicago).

APRIL, 1926. *The Fallacy of a Capital Levy.* J. VAN SICKLE. *The Purchasing-power Parity Theory.* G. W. TERBOUGH. *The Industrial Outlook.* J. L. LAUGHLIN. *The Queensland Basic Wage.* H. FEIS.

JUNE, 1926. *Chile returns to the Gold Standard.* E. W. KEMMERER. *Land Rent and Population Growth.* H. G. BROWN. *Rediscount Federal Reserve Banks.* W. H. STEINER. *Socialists and the Agrarian Question.* G. G. BENJAMIN.

Annals of the American Academy of Political and Social Science (Philadelphia).

MAY, 1926. *Modern Crime; its Prevention and Punishment.*

JULY, 1926. *The United States in relation to the European Situation.*

[*The present situation in Germany and France; the effects of the Debt situation upon Europe's relations with the U.S.; the World Court, the Locarno Pacts, and European security; investment of American capital in Europe and its probable effects upon American foreign policy; the U.S. and Russia; disarmament and the present outlook for peace.* By American and other writers.]

Political Science Quarterly (Columbia University, New York).

JUNE, 1926. *The Social Theory of Fiscal Science.* E. R. A. SELIGMAN. *Economic Theory and Economic Criticism.* F. FRANKLIN. A discussion of Cassel's analysis of rent and interest, in defence of the more orthodox treatment of authors therein criticised. *The Cost of Tax-exempt Securities.* A. F. HINRICH.

Wheat Studies of the Food Research Institute (Stanford University California).

MAY, 1926. *The World Wheat Situation, December* 1925 *to March* 1926.

JUNE, 1926. *Wheat Acreage and Production in the United States since* 1866: *a Revision of Official Estimates.* This issue of the important series of Wheat Studies of the Food Research Institute aims at making a sensational correction to previously accepted ideas as to the course of wheat production in the United States. It is argued that prior to 1902 the official estimates of wheat acreage and production were invariably too low, the true figures having been as much as 30 to 40 per cent. above the official estimates. Whilst the latter show a slight decrease between 1880 and 1895, there was actually an increase of some 15 per cent. Again, the original estimates showed a steady production between 1900 and 1910 on a considerably higher level than in any previous period.

The Institute's investigators now maintain that the acreage reached a peak in 1899 which was not equalled again until 1915, and that between 1899 and 1907 production declined nearly 20 per cent., reaching in 1907 a level lower than in any previous year since 1885.

JULY, 1926. *The Decline in per capita Consumption of Flour in the United States.* The consumption per head changed only slightly prior to 1904, but declined over 21 per cent. between 1904 and 1923, owing to a greater consumption of more expensive foods. On the other hand there was a very great increase in the consumption of sugar.

Monthly Labour Review (Washington).

APRIL, 1926. *Are Average Wages keeping Pace with the increased Cost of Living?*

MAY, 1926. *Vacations with Pay for Wage-earners. Family Allowance Systems in Foreign Countries.*

JUNE, 1926. *Rights of Employées to their Inventions. Number and Deaths of Children in relation to Occupation of Father.*

Bulletin of the U.S. Bureau of Labour Statistics (Washington).

No. 399. *Labour Relations in the Lace Industry of the U.S.A.*

No. 401. *Family Allowances in Foreign Countries.* By M. T. WAGGAMAN.

No. 402. *Collective Bargaining by Actors.*

No. 404. *Wages and Hours of Labour, May* 1925.

No. 405. *Phosphorus Necrosis.*

Review of Economic Statistics (Harvard).

APRIL, 1926. *Review of First Quarter of the Year. Revision of the Index of General Business Conditions. Wholesale Prices in the U.S.,* 1825–45. *Deflated Dollar-value Securities as Measures of Business.*

Journal des Économistes (Paris).

APRIL, 1926. *La "Cyclicité" de la vie économique et de la politique économique éclairée par l'exemple de l'évolution japonaise de* 1868 *à* 1925 *dans ses rapports avec l'étranger.* T. FUKUDA. *Les obstacles à l'évolution économique.* YVES-GUYOT. *Blocus de la Grand Bretagne par les Trade Unions.* YVES-GUYOT. *La charge reelle de la dette.* YVES-GUYOT.

JUNE, 1926. *Précédents et solution de la grève générale britannique.* YVES-GUYOT.

JULY, 1926. *Les banques et l'Inflation.* P. CAUBONE. *Projets du Comité d'experts.* YVES-GUYOT.

Revue d'Économie Politique (Paris).

MARCH–APRIL, 1926. *La France économique ; annuaire pour* 1925.

La Musée Sociale (Paris).

MAY, 1926. *Les États-Unis d'aujourd'hui.* A. SIEGFRIED.

JUNE, 1926. *Les Syndicats professionels.* (Special Report.)

JULY–AUGUST, 1926. *Le droit des Associations.* H. PUGET.

Bulletin du Ministère du Travail et de l'Hygiène (Paris).

JANUARY–MARCH, 1926. *Enquête sur les salaires en France en Octobre 1925.*

Revue de l'Institut de Sociologie (Brussels).

SEPTEMBER–OCTOBER, 1925. *Crises monétaires d'avant et d'après guerre.* B. S. CHLEPNER.

JANUARY, 1926. *La restauration économique de la Belgique.* E. MAHAIM. *La valeur du progrès.* E. DUPRÉEL.

Schmoller's Jahrbuch (Munich and Leipzig).

50 Jahrgang. Heft I. FEBRUARY, 1926. *Proletarischer Sozialismus.* G. BRIEFS. *Der Soziale Mensch.* W. LOEW. *Ein ständisches Program der Agrar-reform.* O. SPANN. *Die Grundsätze der Besteuerung.* F. R. MANN.

Heft. 2. APRIL, 1926. *Zur Lehre von Unternehmergewinn.* R. STRELLER. *Die Wirtschaftliche Seite der deutschosterreichischen Anschlussfrage.* A. GÜNTHER. *Schutz-zoll und Freihandel.* H. M. BECKERATH. *Problematik der Arbeitszeitfrage.* E. HEIMANN.

Heft 3. JUNE, 1926. *Gustav Schmoller und die Probleme von Heute.* J. SCHUMPETER. *Wirtschaftswissenschaft als Wissenschaft.* W. MITSCHERLICH. *Die Soziale Seite der deutsch-osterreichischen Anschlussfrage.* A. GÜNTHER.

Zeitschrift für Volkswirtschaft und Sozialpolitik (Vienna).

Vol. V. Parts 7–9. *Kritisches und Positives zu einer allgemeinen reinen Lehre von Standort.* O. ENGLÄNDER. *H. H. Gossen und seine Zeit.* G. BERGERHAUS. *Zur Neubegrundung der objectiven Wertlehre.* F. OPPENHEIMER (with critical reply by Dr. Ammon).

Zeitschrift für die Gesämte Staatswissenschaft (Tübingen).

1925–6. No. 4. *Adam Smith und die Grundprobleme der National-ökonomie.* A. AMMON. *Prolegomena zur Begründung der national-okonomischen Kategorienlehre.* O. KÜHNE.

1926–7. No. 1. *Zur kategorialen Analyse der Geldfunktion.* H. LUFFT.

Archiv für Sozialwissenschaft und Sozialpolitik (Tübingen).

JUNE, 1926. *Darstellung und Kritik des Keynes'schen Währungs-programs.* A. TISMER. *Zur Theorie der Arbeitswertung.* I. K. BAUERMENGELBERG.

Jahrbuch für Nationalökonomie und Statistik (Jena).

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THE LAWS OF RETURNS UNDER COMPETITIVE CONDITIONS [1]

A STRIKING feature of the present position of economic science is the almost unanimous agreement at which economists have arrived regarding the theory of competitive value, which is inspired by the fundamental symmetry existing between the forces of demand and those of supply, and is based upon the assumption that the essential causes determining the price of particular commodities may be simplified and grouped together so as to be represented by a pair of intersecting curves of collective demand and supply. This state of things is in such marked contrast with the controversies on the theory of value by which political economy was characterised during the past century, that it might almost be thought that from these clashes of thought the spark of an ultimate truth had at length been struck. Sceptics might perhaps think that the agreement in question is due, not so much to everyone being convinced, as to the indifference felt by the majority nowadays in regard to the theory of value—an indifference which is justified by the fact that this theory, more than any other part of economic theory, has lost much of its direct bearing upon practical politics, and particularly in regard to doctrines of social changes, which had formerly been conferred upon it by Ricardo and afterwards by Marx, and in opposition to them by the bourgeois economists. It has been transformed more and more into " an apparatus of the mind, a technique of thinking " which does not furnish any " settled conclusions immediately applicable to policy." [2] It is essentially a pedagogic instrument, somewhat like the study of the classics, and, unlike the study of the exact sciences and law, its purposes are exclusively those of training the mind, for which reason it is hardly apt to

[1] The opening pages of this article contain a summary of the conclusions of a paper on " Relazioni fra costo e quantità prodotta " published in Vol. II. of the *Annali di Economia*.

[2] Keynes: *Introduction to Cambridge Economic Handbooks*.

excite the passions of men, even academical men—a theory, in short, in respect to which it is not worth while departing from a tradition which is finally accepted. However this may be, the fact of the agreement remains.

In the tranquil view which the modern theory of value presents us there is one dark spot which disturbs the harmony of the whole. This is represented by the supply curve, based upon the laws of increasing and diminishing returns. That its foundations are less solid than those of the other portions of the structure is generally recognised. That they are actually so weak as to be unable to support the weight imposed upon them is a doubt which slumbers beneath the consciousness of many, but which most succeed in silently suppressing. From time to time someone is unable any longer to resist the pressure of his doubts and expresses them openly; then, in order to prevent the scandal spreading, he is promptly silenced, frequently with some concessions and partial admission of his objections, which, naturally, the theory had implicitly taken into account. And so, with the lapse of time, the qualifications, the restrictions and the exceptions have piled up, and have eaten up, if not all, certainly the greater part of the theory. If their aggregate effect is not at once apparent, this is because they are scattered about in footnotes and articles and carefully segregated from one another.

It is not the purpose of this article to add anything to the pile, but simply to attempt to co-ordinate certain materials, separating what is still alive from what is dead in the concept of the supply curve and of its effects on competitive price determination.

At present the laws of returns are of special importance owing to the part they play in the study of the problem of value. But they are naturally much older than the particular theory of value in which they are employed, and it is precisely from their secular age and their original applications that they derive both their prestige and their weakness in their modern application. We are disposed to accept the laws of returns as a matter of course, because we have before our eyes the great and indisputable services rendered by them when performing their ancient function, and we often neglect to ask ourselves whether the old barrels are still able to hold the new wine.

The law of diminishing returns has long been associated mainly with the problem of rent, and from this point of view the law as formulated by the classical economists with reference to land was entirely adequate. It had always been perfectly obvious that its

operation affected, not merely rent, but also the cost of the product; but this was not emphasised as a cause of variation in the relative price of the individual commodities produced, because the operation of diminishing returns increased in a like measure the cost of all. This remained true even when the English classical economists applied the law to the production of corn, for, as Marshall has shown, " the term ' corn ' was used by them as short for agricultural produce in general " (*Principles*, VI. i. 2, note).

The position occupied in classical economics by the law of increasing returns was much less prominent, as it was regarded merely as an important aspect of the division of labour, and thus rather as a result of general economic progress than of an increase in the scale of production.

The result was that in the original laws of returns the general idea of a functional connection between cost and quantity produced was not given a conspicuous place; it appears, in fact, to have been present in the minds of the classical economists much less prominently than was the connection between demand and demand price.

The development which has emphasised the former aspect of the laws of returns is comparatively recent. At the same time it has removed both laws from the positions which, according to the traditional partition of political economy, they used to occupy, one under the heading of " distribution " and the other under " production," and has transferred them to the chapter of " exchange-value "; there, merging them in the single " law of non-proportional returns," it has derived from them a law of supply in a market such as can be co-ordinated with the corresponding law of demand; and on the symmetry of these two opposite forces it has based the modern theory of value.

In order to reach this result it was found necessary to introduce certain modifications into the form of the two laws. Very little was necessary as regards the law of diminishing returns, which merely required to be generalised from the particular case of land to every case in which there existed a factor of production of which only a constant quantity was available. The law of increasing returns, however, had to be subjected to a much more radical transformation: the part played in it by the division of labour—now limited to the case of independent subsidiary factories coming into existence as the production of an industry increases—was greatly restricted; while consideration of that greater internal division of labour, which is rendered possible by an increase in the dimensions of an individual firm, was entirely

abandoned, as it was seen to be incompatible with competitive conditions. On the other hand, the importance of "external economies" was more and more emphasised—that is, of the advantage derived by individual producers from the growth, not of their own individual undertakings, but of the industry in its aggregate.

Even in their present form, however, the two laws have preserved the characteristic of originating from forces of profoundly diverse nature. Such heterogeneousness, while not constituting in itself an insurmountable obstacle when it is attempted to co-ordinate them and employ them conjointly in problems mainly relating, not to the causes, but to the effects of variations in cost, involves a fresh difficulty when it is sought to classify the various industries according as they belong to one or the other category. It is, in fact, in the very nature of the bases of the two laws that the wider the definition which we assume for "an industry"—that is, the more nearly it includes all the undertakings which employ a given *factor* of production, as, for example, agriculture or the iron industry—the more probable will it be that the forces which make for diminishing returns will play an important part in it; the more restrictive this definition—the more nearly it includes, therefore, only those undertakings which produce a given type of consumable *commodity*, as, for example, fruit or nails—the greater will be the probability that the forces which make for increasing returns will predominate in it. In its effects this difficulty is parallel to that which, as is well known, arises from the consideration of the element of time, whereby the shorter the period of time allowed for the adjustments, the greater is the likelihood of decreasing returns, while the longer that period is, the greater is the probability of increasing returns.

The really serious difficulties make their appearance when it is considered to what extent the supply curves based on the laws of returns satisfy the conditions necessary to enable them to be employed in the study of the equilibrium value of single commodities produced under competitive conditions. This point of view assumes that the conditions of production and the demand for a commodity can be considered, in respect to small variations, as being practically independent, both in regard to each other and in relation to the supply and demand of all other commodities. It is well known that such an assumption would not be illegitimate merely because the independence may not be absolutely perfect, as, in fact, it never can be; and a slight degree of interdependence may be overlooked without disadvantage if it applies to quantities

of the second order of smalls, as would be the case if the effect (for example, an increase of cost) of a variation in the industry which we propose to isolate were to react partially on the price of the products of other industries, and this latter effect were to influence the demand for the product of the first industry. But, of course, it is a very different matter, and the assumption becomes illegitimate, when a variation in the quantity produced by the industry under consideration sets up a force which acts directly, not merely upon its own costs, but also upon the costs of other industries; in such a case the conditions of the "particular equilibrium" which it was intended to isolate are upset, and it is no longer possible, without contradiction, to neglect collateral effects.

It unfortunately happens that it is precisely into this latter category that the applications of the laws of returns fall, in the great majority of cases. As regards diminishing returns, in fact, if in the production of a particular commodity a considerable part of a factor is employed, the total amount of which is fixed or can be increased only at a more than proportional cost, a small increase in the production of the commodity will necessitate a more intense utilisation of that factor, and this will affect in the same manner the cost of the commodity in question and the cost of the other commodities into the production of which that factor enters; and since commodities into the production of which a common special factor enters are frequently, to a certain extent, substitutes for one another (for example, various kinds of agricultural produce), the modification in their price will not be without appreciable effects upon demand in the industry concerned. If we next take an industry which employs only a small part of the "constant factor" (which appears more appropriate for the study of the particular equilibrium of a single industry), we find that a (small) increase in its production is generally met much more by drawing "marginal doses" of the constant factor from other industries than by intensifying its own utilisation of it; thus the increase in cost will be practically negligible, and anyhow it will still operate in a like degree upon all the industries of the group. Excluding these cases, and excluding—if we take a point of view embracing long periods—the numerous cases in which the quantity of a means of production may be regarded as being only temporarily fixed in respect to an unexpected demand, very little remains: the imposing structure of diminishing returns is available only for the study of that minute class of commodities in the production of which the whole of a factor of production is employed. Here, of course, by "a commodity" is to be under-

stood an article in regard to which it is possible to construct, or at least to conceive, a demand schedule which is tolerably homogeneous and independent of the conditions of supply, and not, as is frequently implied, a collection of diverse articles, such as agricultural products or ironware.

It is not by mere chance that, notwithstanding the profoundly diverse nature of the two laws of returns, the same difficulties also arise, in almost identical form, in connection with increasing returns. Here again we find that in reality the economies of production on a large scale are not suitable for the requirements of the supply curve: their field of action is either wider or more restricted than would be necessary. On the one hand, reductions in cost which are due to "those *external* economies which result from the general progress of industrial environment" to which Marshall refers (*Principles*, V. xi. 1) must, of course, be ignored, as they are clearly incompatible with the conditions of the particular equilibrium of a commodity. On the other hand, reductions in cost connected with an increase in a firm's scale of production, arising from internal economies or from the possibility of distributing the overhead charges over a larger number of product units, must be put aside as being incompatible with competitive conditions. The only economies which could be taken into consideration would be such as occupy an intermediate position between these two extremes; but it is just in the middle that nothing, or almost nothing, is to be found. Those economies which are external from the point of view of the individual firm, but internal as regards the industry in its aggregate, constitute precisely the class which is most seldom to be met with. As Marshall has said in the work in which he has intended to approach most closely the actual conditions of industry, "the economies of production on a large scale can seldom be allocated exactly to any one industry: they are in great measure attached to groups, often large groups, of correlated industries."[1] In any case, in so far as external economies of the kind in question exist, they are not likely to be called forth by *small* increases in production. Thus it appears that supply curves showing decreasing costs are not to be found more frequently than their opposite.

Reduced within such restricted limits, the supply schedule with variable costs cannot claim to be a general conception applicable to normal industries; it can prove a useful instrument only in regard to such exceptional industries as can reasonably satisfy its conditions. In normal cases the cost of production of

[1] *Industry and Trade*, p. 188.

commodities produced competitively—as we are not entitled to take into consideration the causes which may make it rise or fall—must be regarded as constant in respect of small variations in the quantity produced.[1] And so, as a simple way of approaching the problem of competitive value, the old and now obsolete theory which makes it dependent on the cost of production alone appears to hold its ground as the best available.

This first approximation, as far as it goes, is as important as it is useful: it emphasises the fundamental factor, namely, the predominant influence of cost of production in the determination of the normal value of commodities, while at the same time it does not lead us astray when we desire to study in greater detail the conditions under which exchange takes place in particular cases, for it does not conceal from us the fact that we cannot find the elements required for this purpose within the limits of its assumptions.

When we proceed to a further approximation, while keeping to the path of free competition, the complications do not arise gradually, as would be convenient; they present themselves simultaneously as a whole. If diminishing returns arising from a "constant factor" are taken into consideration, it becomes necessary to extend the field of investigation so as to examine the conditions of simultaneous equilibrium in numerous industries: a well-known conception, whose complexity, however, prevents it from bearing fruit, at least in the present state of our knowledge, which does not permit of even much simpler schemata being applied to the study of real conditions. If we pass to external economies, we find ourselves confronted by the same obstacle, and there is also the impossibility of confining within statical conditions the circumstances from which they originate.

[1] The absence of causes which tend to cause the cost either to increase or diminish appears to be the most obvious and plausible way from which constant costs can arise. But as these constitute the most dangerous enemy of the symmetry between demand and supply, those writers who accept this doctrine, in order to be able to relegate the constant costs to the category of theoretical limiting cases which in reality cannot exist, have persuaded themselves that they are something extremely complicated and improbable, since they "can only result from the accidental balancing of two opposite tendencies; the tendency to diminution of cost . . . and the tendency to increase of cost . . ." (Sidgwick, *Principles of Political Economy*, 1st ed., p. 207; to the same effect see, *e.g.*, Marshall, *Principles*, IV. xiii, 2, and *Palgrave's Dictionary*, *sub voce* Law of Constant Return). The dictum of Edgeworth, that "to treat *variables* as *constants* is the characteristic vice of the unmathematical economist," might to-day be reversed: the mathematical economists have gone so far in correcting this vice that they can no longer conceive of a constant except as the result of the compensation of two equal and opposite variables.

It is necessary, therefore, to abandon the path of free competition and turn in the opposite direction, namely, towards monopoly. Here we find a well-defined theory in which variations of cost connected with changes in the dimensions of the individual undertaking play an important part. Of course, when we are supplied with theories in respect to the two extreme cases of monopoly and competition as part of the equipment required in order to undertake the study of the actual conditions in the different industries, we are warned that these generally do not fit exactly one or other of the categories, but will be found scattered along the intermediate zone, and that the nature of an industry will approximate more closely to the monopolist or the competitive system according to its particular circumstances, such as whether the number of autonomous undertakings in it is larger or smaller, or whether or not they are bound together by partial agreements, etc. We are thus led to believe that when production is in the hands of a large number of concerns entirely independent of one another as regards control, the conclusions proper to competition may be applied even if the market in which the goods are exchanged is not absolutely perfect, for its imperfections are in general constituted by frictions which may simply retard or slightly modify the effects of the active forces of competition, but which the latter ultimately succeed in substantially overcoming. This view appears to be fundamentally inadmissible. Many of the obstacles which break up that unity of the market which is the essential condition of competition are not of the nature of "frictions," but are themselves active forces which produce permanent and even cumulative effects. They are frequently, moreover, endowed with sufficient stability to enable them to be made the subject of analysis based on statical assumptions.

Of these effects two, which are closely interconnected, are of special importance because they are to be found with great frequency in industries in which competitive conditions appear to prevail; and they also possess a special interest because, as they relate to certain of the most characteristic features of the theoretical conception of competition, they show how seldom it is for these conditions to be realised in their integrity, and how a slight divergence from them suffices to render the manner in which equilibrium is attained extremely similar to that peculiar to monopoly. These two points in which the theory of competition differs radically from the actual state of things which is most general are: first, the idea that the competing producer cannot deliberately affect the market prices, and that he may therefore

regard it as constant whatever the quantity of goods which he individually may throw on the market; second, the idea that each competing producer necessarily produces normally in circumstances of individual increasing costs.

Everyday experience shows that a very large number of undertakings—and the majority of those which produce manufactured consumers' goods—work under conditions of individual diminishing costs. Almost any producer of such goods, if he could rely upon the market in which he sells his products being prepared to take any quantity of them from him at the current price, without any trouble on his part except that of producing them, would extend his business enormously. It is not easy, in times of normal activity, to find an undertaking which systematically restricts its own production to an amount less than that which it could sell at the current price, and which is at the same time prevented by competition from exceeding that price. Business men, who regard themselves as being subject to competitive conditions, would consider absurd the assertion that the limit to their production is to be found in the internal conditions of production in their firm, which do not permit of the production of a greater quantity without an increase in cost. The chief obstacle against which they have to contend when they want gradually to increase their production does not lie in the cost of production—which, indeed, generally favours them in that direction—but in the difficulty of selling the larger quantity of goods without reducing the price, or without having to face increased marketing expenses. This necessity of reducing prices in order to sell a larger quantity of one's own product is only an aspect of the usual descending demand curve, with the difference that instead of concerning the whole of a commodity, whatever its origin, it relates only to the goods produced by a particular firm; and the marketing expenses necessary for the extension of its market are merely costly efforts (in the form of advertising, commercial travellers, facilities to customers, etc.) to increase the willingness of the market to buy from it—that is, to raise that demand curve artificially.

This method of regarding the matter appears the most natural, and that which adheres to the reality of things. No doubt it is possible, from the formal point of view, to reverse these relations and regard every purchaser as being perfectly indifferent in his choice between the different producers, provided the latter, in order to approach him, are prepared to incur marketing expenses varying greatly in different cases, and to reckon these increased

marketing expenses in the cost of production of each. In this way increasing individual costs can be obtained to any desired extent and a perfect market in which there is an unlimited demand, at current prices, for the products of each. But the question of allocating the marketing expenses cannot be decided from the point of view of formal correctness, for on that basis the two methods are equivalent; nor can it be decided according to the fact that these charges are actually paid by the purchaser or the seller, as this does not affect their incidence or their effects in any way. What is important is to ascertain how the various forces at work can be grouped in the most homogeneous manner, so that the influence of each of them on the equilibrium resulting from their opposition may be more readily estimated. From this point of view the second of the methods mentioned must be rejected, since it entirely conceals the effects which the circumstances from which the marketing expenses originate exercise in disturbing the unity of the market. It alters in a misleading way, moreover, the customary and well defined significance of the expression "cost of production," with the result of rendering it dependent upon elements quite extraneous to the conditions under which the production of a given undertaking takes place. It consequently misrepresents the manner in which the actual process of determining the price and the quantity produced by each undertaking is affected.

By adhering to the first point of view, therefore, we are led to ascribe the correct measure of importance to the chief obstacle which hinders the free play of competition, even where this appears to predominate, and which at the same time renders a stable equilibrium possible even when the supply curve for the products of each individual firm is descending—that is, the absence of indifference on the part of the buyers of goods as between the different producers. The causes of the preference shown by any group of buyers for a particular firm are of the most diverse nature, and may range from long custom, personal acquaintance, confidence in the quality of the product, proximity, knowledge of particular requirements and the possibility of obtaining credit, to the reputation of a trade-mark, or sign, or a name with high traditions, or to such special features of modelling or design in the product as—without constituting it a distinct commodity intended for the satisfaction of particular needs—have for their principal purpose that of distinguishing it from the products of other firms. What these and the many other possible reasons for preference have in common is that they are expressed in a willingness

(which may frequently be dictated by necessity) on the part of the group of buyers who constitute a firm's clientele to pay, if necessary, something extra in order to obtain the goods from a particular firm rather than from any other.

When each of the firms producing a commodity is in such a position the general market for the commodity is subdivided into a series of distinct markets. Any firm which endeavours to extend beyond its own market by invading those of its competitors must incur heavy marketing expenses in order to surmount the barriers by which they are surrounded; but, on the other hand, within its own market and under the protection of its own barrier each enjoys a privileged position whereby it obtains advantages which —if not in extent, at least in their nature—are equal to those enjoyed by the ordinary monopolist.

Nor is it necessary to stress the customary conception of monopoly to make this case fit into it. In it also, in fact, we find that the majority of the circumstances which affect the strength of a monopolist (such as the possession of unique natural resources, legal privileges, the control of a greater or less proportion of the total production, the existence of rival commodities, etc.) exercise their influence essentially by affecting the elasticity of the demand for the monopolised goods. Whatever the causes may be, this is the only decisive factor in estimating the degree of independence which a monopolist has in fixing prices: the less elastic the demand for his product, the greater is his hold on his market. The extreme case, which may properly be called "absolute monopoly," is that in which the elasticity of the demand for the products of a firm is equal to unity [1]; in that case, however much the monopolist raises his prices, the sums periodically expended in purchasing his goods are not even partially diverted into different channels of expenditure, and his price policy will not be affected at all by the fear of competition from other sources of supply. So soon as this elasticity increases, competition begins to make itself felt, and becomes ever more intense as the elasticity grows, until to infinite elasticity in the demand for the products of an individual undertaking a state of perfect competition corresponds. In the intermediate cases the significance of a moderate elasticity

[1] The elasticity of demand for the products of a monopolist cannot, of course, be less than unity in respect to prices immediately above the equilibrium price— that is, in respect to that part of the demand curve which alone counts in regard to the determination of the power of a monopolist in his own market; a question which is quite distinct from that of the magnitude of the gains obtainable by the monopoly, as the latter is dependent, not so much on the ratio of change, as on the absolute measure of the demand and the demand price.

in the demand is that, although the monopolist has a certain freedom in fixing his prices, whenever he increases them he is forsaken by a portion of his purchasers, who prefer to spend their money in some other manner. It matters little to the monopolist if they spend it in purchasing goods very different from his own, or goods identical with them, but supplied by other producers who have not increased their price; in either case he must undergo —if only in a slight degree—actual competition from such goods, since it is precisely the possibility of buying them that leads the purchasers gradually to give up using his product as he increases the price. The direct effects are thus equal whether the sums set free as the result of an increase in price by an undertaking are expended on a large number of different commodities, or whether they are employed preponderatingly in the purchase of one or a few rival commodities which are more or less available for buyers, as occurs in the case of an undertaking which, while controlling only a small part of the total production of a commodity, has the advantage of possessing a particular market of its own. But the indirect effects in the two cases are substantially different.

The method indicated by Marshall in regard to manufactures designed for particular tastes is applicable for the study of this latter case. "When we are considering an individual producer," he writes, "we must couple his supply curve, not with the general demand curve for his commodity in a wide market, but with the particular demand curve of his own special market" (*Principles*, V. xii. 2). If we extend this method to those industries in which each firm has more or less a particular market, we must not restrict its employment to the occasions when we are considering the individual producer, but we must adhere to it also when we examine the manner in which equilibrium is attained in the trade as a whole; for it is clear that such particular curves can by no means be compounded so as to form a single pair of collective demand and supply curves. The method mentioned above is the very same as that followed in cases of ordinary monopoly, and in both cases, in fact, the individual producer determines his selling price by the well-known method which makes his monopoly revenue or his profits the maximum obtainable.

The peculiarity of the case of the firm which does not possess an actual monopoly but has merely a particular market is that, in the demand schedule for the goods produced by it, the possible buyers are entered in descending order according to the price which each of them is prepared to pay, not rather than go entirely without, but rather than not buy it from that particular producer

instead of elsewhere. That is to say, that two elements enter into the composition of such demand prices—the price at which the goods can be purchased from those other producers who, in the order of a purchaser's preference, immediately follow the producer under consideration, and the monetary measure of the value (a quantity which may be positive or negative) which the purchaser puts on his preference for the products of the firm in question.

For convenience in discussion it may be assumed that initially, in an industry in which like conditions prevail, each producer sells at a price which barely covers his costs. The individual interest of each producer will urge him to increase his price quickly so as to obtain the maximum profit. But in proportion as this practice spreads throughout the trade the various demand schedules will be modified as a result; for, as each buyer finds that the prices of the substitutes upon which he was able to reckon are increased, he will be inclined to pay a higher price for the products of the firm whose customer he is. So that, even before the first increase in price has been completely carried into effect, the conditions will be created which may permit every one of the concerns to make a further increase—and so on in succession. Naturally this process speedily reaches its limit. The customers lost by a firm whenever it raises its prices have recourse in part to other suppliers, and these will return to it when the others also have raised their prices; but in part they entirely give up buying the goods and definitely drop out of the market. Thus, every business has two classes of marginal customers—those who are at the margin only from its own individual standpoint and fix a limit for the excess of its prices over the prices generally ruling, and those who are at the margin from the standpoint of the general market and fix a limit for the general increase in price of the product.

It is, of course, possible that a general rise in the prices of a product may affect the conditions of demand and supply of certain firms in such a way as to make it advantageous for them to lower their prices rather than conform with the rise. But in an industry which has attained a certain degree of stability in its general structure, in regard of its methods of production, the number of undertakings composing it, and its commercial customs—in respect to which, therefore, statical assumptions are more nearly justified—this alternative is much less likely to be adopted than its opposite. In the first place, it involves great elasticity in the demand for the products of an individual business and rapidly diminishing costs for it—that is to say, a state of things the almost inevitable and speedy result of which is complete

monopolisation, and which, therefore, is not likely to be found in a trade operated normally by a number of independent firms. In the second place, the forces which impel producers to raise prices are much more effective than those which impel them to reduce them; and this not merely owing to the fear which every seller has of spoiling his market, but mainly because an increase of profit secured by means of a cut in price is obtained *at the cost* of the competing firms, and consequently it impels them to take such defensive action as may jeopardise the greater profits secured; whereas an increase of profit obtained by means of a rise in prices not only does not injure competitors but brings them a positive *gain*, and it may therefore be regarded as having been more durably acquired. An undertaking, therefore, when confronted with the dual possibility of increasing its profits by raising its selling prices, or by reducing them, will generally adopt the first alternative unless the additional profits expected from the second are considerably greater.

These same reasons may serve to dispel the doubt, which might at first sight arise, whether in the case considered above the equilibrium may be indeterminate, as it is generally considered to be in the analogous case of multiple monopoly. In the first place, even in this case, as Edgeworth has noticed, "the extent of indeterminateness diminishes with the diminution of the degree of correlation between the articles" produced by the different monopolists [1]; that is to say, in our case, with the diminution of the elasticity of demand for the products of the individual firm—a limitation, it may be added, the effectiveness of which is the greater in proportion as the rapidity of decrease in the individual cost with the increase in the quantity produced becomes less. Both these conditions, as has been said above, are generally present to a large extent in the case we are considering. Moreover, the indeterminateness of the equilibrium in the case of multiple monopoly is necessarily dependent upon the assumption that at any moment each of the monopolists is *equally* inclined either to raise or to reduce his price, according as one or the other may suit him best from the point of view of immediate gain—a supposition which, at least in our case, is not, as we have said, justified.[2]

[1] *The Pure Theory of Monopoly*, in Papers Relating to P. E., Vol. I. p. 121.

[2] The determinateness of the equilibrium would be more evident if, instead of regarding the various units of the same goods produced by different undertakings as rival commodities, we had regarded each unit as being composed of two commodities having, within each particular market, a joint demand, one of which (the commodity itself) is sold under competitive conditions, and the other

The conclusion that the equilibrium is in general determinate does not mean that generalising statements can be made regarding the price corresponding to that equilibrium; it may be different in the case of each undertaking, and is dependent to a great extent upon the special conditions affecting it.

The only case in which it would be possible to speak of a general price would be that of a trade in which the productive organisation of the different undertakings was uniform, and in which their particular markets were alike as regards the nature and attachment of the customers. In that case, as may readily be seen, the general price of the product, through the independent action of a number of firms, each of which is prompted only by its individual interests, would tend to reach the same level as that which would be fixed by a single monopolistic association in accordance with the ordinary principles of monopoly. This result, far from being conditioned by the existence of an almost complete isolation of the individual markets, requires only a very slight degree of preference for a particular firm in each of the groups of customers. In itself, this case is of no importance, because it is extremely unlikely that such uniformity would actually be found; but it is representative of a tendency, which prevails even in actual cases where the conditions of the various undertakings differ among each other, whereby the cumulative action of slight obstacles to competition produces on prices effects which approximate to those of monopoly.

It should be noted that in the foregoing the disturbing influence exercised by the competition of new firms attracted to an industry the conditions of which permit of high monopolist profits has been neglected. This appeared justified, in the first place because the entrance of new-comers is frequently hindered by the heavy expenses necessary for setting up a connection in a trade in which the existing firms have an established goodwill—expenses which may often exceed the capital value of the profits obtainable; in the second place, this element can acquire importance only when the monopoly profits in a trade are considerably above the normal level of profits in the trade in general, which, however, does not prevent the prices from being determined up to that point in the manner which has been indicated.

It might seem, moreover, that the importance of the marketing difficulties as a limit to the development of the productive

(the special services, or the distinguishing features added to it by each producer) is sold under monopolistic conditions. This point of view, however, is more artificial and less in conformity with the customary method of regarding the matter.

unit has been over-estimated as compared with the effect in the same direction exercised by the more than proportionate increase in the expenditure which a firm must sometimes incur in order to furnish itself with the additional means of production which it requires; but it will generally be found that such increases in costs are an effect, and not a determining cause, of the market conditions which render it necessary or desirable for a firm to restrict its production. Thus, the limited credit of many firms, which does not permit any one of them to obtain more than a limited amount of capital at the current rate of interest, is often a direct consequence of its being known that a given firm is unable to increase its sales outside its own particular market without incurring heavy marketing expenses. If it were known that a firm which is in a position to produce an increased quantity of goods at a lower cost is also in a position to sell them without difficulty at a constant price, such a firm could encounter no obstacle in a free capital market. On the other hand, if a banker, or the owner of land on which a firm proposes to extend its own plant, or any other supplier of the firm's means of production, stands in a privileged position in respect to it, he can certainly exact from it a price higher than the current price for his supplies, but this possibility will still be a direct consequence of the fact that such a firm, being in its turn in a privileged position in regard to its particular market, also sells its products at prices above cost. What happens in such cases is that a portion of its monopoly profits are taken away from the firm, not that its cost of production is increased.

But these are mainly aspects of the process of diffusion of profits throughout the various stages of production and of the process of forming a normal level of profits throughout all the industries of a country. Their influence on the formation of the prices of single commodities is relatively unimportant, and their consideration is therefore beyond the scope of this article.

PIERO SRAFFA

BRITISH EXPORT TRADE[1]

For a country situated as is Great Britain, dependent on outside sources for a large part of its food-stuffs and for the majority of the materials for the mechanical industries which provide employment and the means of livelihood to the crowded populations of its towns, the maintenance of a large export trade is a fundamental condition of existence. It is, therefore, not a matter for surprise that the progress of our export trade is watched with anxious interest. For a considerable period before the war, the magnitude of the export trade increased at a rate which afforded considerable ground for satisfaction. Thus, comparing 1913 with 1900, the value of the exports of the produce and manufactures of the United Kingdom increased by £234,000,000 or just over 80 per cent., being an average increase of 4·7 per cent. per annum, in spite of the sharp set-back of 1908. Now 1913 was a year of somewhat special activity, though it is interesting to note that the aggregate exports of the twelve months ended May 1914 were slightly greater than those of the calendar year 1913, the exports of the twelve months to June 1914 being slightly less than those of 1913. Had the average progress of the following years equalled that of the period from 1900 to 1913, the equal period from 1912 to 1925 would have given an expansion carrying the total value of British exports to about £879,000,000, while the actual figure was £773,000,000, including £40,000,000 representing our shipments to the Irish Free State, which were "internal" trade in 1900–1913. The fact that prices have varied must also be allowed for. If this is done for the period 1900–1913 the measure of the increase in the period is reduced to 70·8 per cent., or an average rate of 4·2 per cent. per annum. Using the unit values of 1913 as the basis of calculation, the quantities of goods exported in 1912, increased for trade expansion during thirteen years by 70·8 per cent. on the average, would yield for 1925 a total of about £863,000,000. The selection of 1912 as the initial year of the second period, while it gives that period a length equal to that of the earlier period commenced in 1900, has the advantage of avoiding a measurement from the year of greatest

[1] Based on a paper read before section F of the British Association, Oxford, 1926.

pre-war exports. But, as the exports of 1912 differed from those of 1913 in average values as well as in quantities, and the differences of values per unit of quantity accounted for roughly half the recorded difference of aggregate values, the selection of 1912 in place of 1913 as the initial date of the second interval of thirteen years affects the measure of volume of trade calculated for 1925 less than might have been anticipated from a consideration of the recorded total values of exports in 1912 and 1913.

The actual exports of 1925, if we assign to each class of goods the average value of the same class of goods exported in 1913, and make due allowance for the change in regard to trade with Southern Ireland, represented about £400,000,000, or less than one-half of the amount which, with a continued expansion at the rate experienced from 1900 to 1913, might have been attained. In this comparison, the error of selecting, as the period with which to compare, the interval from the trough of a depression to the crest of a wave of expansion does not vitiate the result, since 1900 was a year of exceptional activity in our export trade.

It is not my object, in calling attention to the effects of the war on the progress of our export trade, to stress the pessimistic view in regard to our commercial position and prospects. The check in the development of the world, and of the exchanges between nations, resulting from the war has affected not only ourselves, but also those countries whose rivalry in our overseas markets was a matter of great concern to us even in the period to which I have referred, during which the expansion of our trade attained so considerable a magnitude. During that pre-war period the external trade of all countries, according to calculations of a Dutch statistician quoted in *The Economist* of July 31, 1926, and of a German writer in *Die Gesellschaft* of January last, basing himself on the summaries compiled by the Statistisches Reichsamt, increased in value by about 80 per cent., or, so far as exports are concerned, from rather over £2200 millions to rather over £4000 millions. To determine the extent to which price changes affected this great mass of trade would require a very lengthy calculation, even if the elementary detailed figures were available which could serve as its basis. From the results of our own experience, it would appear that the food and raw materials we imported were costing us, in 1913, about 13 per cent. more per unit of quantity than in 1900, while the manufactured goods we exported were bringing in less than 10 per cent. more per unit. The exports of the world may, perhaps, be taken to have risen somewhat more in average values than our exports, since natural

products form a larger fraction of the general exports of the world than of our exports, and our imports afford a clue to the price tendencies in the world exports of natural products. The value, at 1913 prices, of the world's exports would appear to be estimated by the German writer referred to above at about £2500 millions in 1900, a figure which seems reasonably consistent with the calculations just cited. Thus there would appear to have been a somewhat greater increase in the volume of our export trade, during the period in question, than in that of the aggregate international trade of the world. Perhaps, in spite of the growing volume of natural products, the equipment for exploiting them and the clothing of the workers engaged in the work of exploitation were in growing demand, and we, by the character of our industry, felt the effect of that growing demand. How is it with the later course of trade? According to a compilation which appears in the issue of July 19 of the *Commerce Reports* of the United States Department of Commerce, the exports (including, at least in some cases, re-exports) of fifty-five countries, representing something like 90 per cent. of the value of the world's exports, were greater by 53 per cent. in gold value in 1925 than in 1913. This aggregate includes the additions which arise from the creation of new international boundaries. Making such allowance for those changes as the information available appears to justify, and assuming that the total of the world's exports has expanded in gold value similarly to the exports of the fifty-five countries serving as the basis of this American calculation, we find that the export trade of the United Kingdom now represents approximately 12 per cent. of the value of the world's total exports as compared with 13 per cent. in 1913 and less than 13½ per cent. in 1900.[1]

[1] In the tables of world trade prepared by the new *Institut für Konjunkturforschung* (1 Jahrgang, 1926, Heft 2, p. 95) the aggregate of exports recorded for 1913 is 66,699 million marks. For 1925 the value, calculated in gold marks at 1913 values, is given as 64,493 millions, a reduction of 3·3 per cent. For the United Kingdom the reduction is calculated as 7·9 per cent. The fraction of the total assigned to this country is 16·1 per cent. in 1913 and 15·3 per cent. in 1925, showing a smaller proportionate reduction than the figures in the text. No adjustment for the increase in the world's 1925 aggregate due to new international boundaries is made. It would appear that the aggregates are not exhaustive, and the results may also be affected by the mode of reduction of values for 1925 in gold marks to their equivalent at 1913 prices, for which purpose the Wholesale Prices Index of our Board of Trade has been used. If allowance is made for the inclusion in the figures of United Kingdom exports in 1925 of the exports to the Irish Free State, our relative share in the world's export trade in 1925 will be reduced so as to show a falling off from 1913 to 1925 somewhat greater than that represented by the figures in the text.

These figures appear to suggest that the restoration of world trade to its former dimensions and capacity of expansion can do more to restore our own export trade, and revive the industries that depend on it, than a struggle to secure for ourselves trade that has been carried on by some other nation, important as it is to maintain our competitive capacity. In this connection it is not without interest to note that, taking the *Commerce Reports* figures of European imports, which appear to be nearly complete, the imports of countries other than the British Isles are stated as $10,112 millions in 1913 and $11,984 millions in 1925, or, say, £2280 millions and £2470 millions. Our exports to Europe, with charges of transport added, may be estimated at about £200 millions in 1913 and £260 millions in 1925. They appear, therefore, to have formed under 9 per cent. in 1913 and about 10½ per cent. in 1925 of Europe's total imports. Yet the percentage of our aggregate exports which we sent to Europe was 34·6 in 1913 and 32·0 in 1925, and fell further to 29·5 in the year ended June 1926. In this fall the reduction in exports of coal had a great share, owing to the preponderance of Europe in our markets for exported coal.

For the other continents, the American writer's aggregates appear to involve omissions of an importance sufficient to render corresponding deductions deceptive. It may, however, be of importance to refer to the figures of our trade with other parts of the British Empire, which took 37·2 per cent. of our exports of 1913 and 39·2 per cent. in 1925,[1] a percentage further increased to 41·4 in the year ended June 1926. Allowing for cost of transport, it would appear that our exports to the Empire represented about 41 per cent. of Empire imports in 1913, and nearly 37 per cent. in 1925. In these comparisons between 1913 and 1925, the countries covered have been kept as nearly as possible the same, that is to say, the trade of the Irish Free State in 1925 is left out of account in order to preserve as sound a basis of comparison as possible, and for the same reason the Anglo-Egyptian Sudan and the mandated territories of Palestine and Iraq, Tanganyika and South-West Africa, parts of foreign countries in 1913, have been treated as foreign in 1925. The figures of our trade with them in 1913 are not separately recorded.

The contrast between the effect on our export trade of the lessened trade activity of Europe and of the expanding trade of the British Empire overseas is marked. Europe, and the world

[1] The value of all articles other than coal, coke and manufactured fuel, which were consigned to British countries in 1913 was 41·0 per cent. of the value of the total export of such articles. In 1925 the percentage consigned to the same countries was 41·7, and in the twelve months ended June 1926, 43·7.

which lies outside Europe and the British Empire, appear each to take about one-tenth of their imports from the United Kingdom, and thus it appears that, for a given volume of trade, we are securing well on to four times as much if the demand arises within the British Empire as if it arises outside the Empire, average conditions in each case being the basis of the comparison. Of course there are regions outside the British Empire which look to us for as great a share of their supplies as do some parts of the Empire itself.

The Principal Exporting Industries

Turning from the geographical distribution of our export trade to its industrial distribution, it is not necessary to dwell on the part of it which is concerned with Food, representing now, as just before the war, a little under 6½ per cent. as against about 5 per cent. at the beginning of the century. In raw materials, coal is the dominant element, responsible for nearly 10 per cent. of our aggregate exports in 1913, but for only just over 6½ per cent. in 1925. Other items, particularly wool and oils, have increased in importance, but the class of Raw Materials, which represented 12·6 per cent. of our exports in 1913, represented but 11·1 per cent. in 1925, a percentage reduced to 10 for the twelve months ended June 1926.

Leading Groups of British Exports, 1913 and 1925

(Trade with the Irish Free State in 1925 is excluded.)

	1913.		1925.	
	To British Countries.	To All Countries.	To British [1] Countries.	To All Countries.
	Million £.	Million £.	Million £.	Million £.
Food, Drink and Tobacco	12·8	33·9	20·4	45·1
Coal	1·8	50·7	3·0	47·9
Other Raw Materials	1·5	15·5	3·1	33·1
Iron and Steel Goods	26·9	55·3	35·2	66·4
Machinery	10·9	33·6	22·5	48·1
Cotton Goods	57·8	126·5	80·1	197·6
Woollen and Worsted Goods	10·1	35·7	16·8	57·6
Vehicles	9·4	24·5	17·8	31·5
Other Manufactured Goods	59·3	138·2	89·4	193·2
Total Exports (including Parcels Post, etc.)	195·3	525·2	294·9	733·2

[1] The territories specified above (p. 554) have not been included here, full details not being available.

What are usually called the "manufactured" exports, officially described as "Articles wholly or mainly manufactured," accounted for about 78·8 per cent. of the total in 1913 (and in 1900) and for 81 per cent. in 1925. This change of percentages is due to the lessened relative importance of the Raw Materials class rather than to positive expansion in manufactures. In the class of Manufactures there are four groups each of which comprised more than 5 per cent. in value of the total exports, and which, together, accounted in 1925 for about one-half of those exports.

As shown in the above table, these are, in order of monetary importance, Cotton, Iron and Steel, Wool and Machinery, to which Vehicles, with between 4 and 5 per cent., may be added. It will be observed that two of the four depend on the demand for capital equipment, and therefore on the volume of saving here and elsewhere. The other two are concerned more with the demand for clothing and household equipment, though not unconnected with capital extensions, since increased employment on capital works abroad might be expected to increase the demand for textile goods on the part of the classes engaged on such works. The fifth group may be related either to capital development or to expenditure on personal services, or to both. From about 50 per cent. of our exports in 1900, these five groups rose in importance to 52·5 per cent. in 1913, and in 1925, after allowing for Irish Free State trade, to 54·7 per cent. of the total. An examination of these groups seems one of the most promising ways in which to seek light on one of the puzzling problems of our export trade records, namely, the comparatively large increase in average values per unit, viewed in relation to the increase in the prices of raw materials. Some importance attaches to the differences in price movements of different raw materials, and to the comparative importance of these in reference to the particular goods included in the aggregate of our manufactured exports. In addition to this consideration, two explanations appear to present themselves. Either the cost of the manufacturing processes has increased relative to the cost of the raw material, or the goods included in recent years under important headings in our statistics of trade are different in kind or quality from those similarly included in former periods. In particular instances other circumstances, such as changes in the units of measurement, introducing uncertainty into the comparisons, may help to render the problem difficult of solution.

Take first the case of Cotton Goods, accounting for 24 per

cent. of our total exports in 1913 and in 1900, and for nearly 27 per cent. in 1925, after allowing in the published aggregate figures for the Irish Free State trade. There is clearly room for much variation in quality under the existing headings. Thus the yarns actually exported may be finer or coarser on average than formerly, and similarly for piece goods. Comparing 1925 with 1920 such a change has occurred. The percentage of bleached or dyed yarns has decreased from 17¼ to 9¾. On the other hand, yarns of 40's counts and under accounted for 64 per cent. of the total weight in 1920 and for only 51 per cent. in 1925. Yarns from 40's to 80's increased in importance from 25 to 35 per cent., and those from 80's to 120's from barely 9 per cent. to over 12 per cent., the still finer yarns decreasing in proportion to the total quantity. What was the distribution of counts in 1913 there is no record, and therefore no means of deciding whether the true average value per pound of the yarn exports of 1925 would have been, at 1913 prices, 1*s.* 5*d.*, the actual average of 1913, or a higher or lower value. The average value of grey yarns exported in 1925 showed an increase of 121·4 per cent. on the corresponding 1913 average, and it is possibly significant that the average market values of seven typical yarns were higher by 112 per cent. in 1925 than in 1913.

The two largest figures in the record of exports by countries were, for 1913, and also for 1925, those relating to Germany and Holland. The former were, and remain, of relatively high value, the latter of relatively low value. Both have increased in importance, absolutely as well as relatively, but the expansion has been greater in the quantities sent to Holland than in those sent to Germany. In recent years the former have had a large element of grey yarns of the coarsest range of counts separately shown in our records (under 40's); the latter have had as the predominant element grey yarns of a finer class (40's to 80's), and have been, in price, above the average of the class. The effect of these changes on the calculation of the average rise in value per pound cannot, in the absence of the detailed information regarding the trade of 1913, be estimated even roughly.

In piece-goods the position is also beyond satisfactory elucidation. Of the total value of piece-goods exported, the percentages were: for grey goods 28·0 in 1913 and 23·4 in 1925; for bleached cottons 27·7 in 1913 and 29·4 in 1925; for goods dyed in the piece 22·3 in 1913 and 24·9 in 1925. Prints represent practically the same percentage (17) at both dates and coloured cottons were only about 5 per cent. of the total, so that the changes have only

minor importance in reference to the aggregate. These differences in relative importance enter into the ordinary calculations of the average price change. But the records do not show the fineness of the goods, and even though the weight and average width is now ascertained, these factors are unknown for 1913. There are, however, some presumptions which may serve as guides. India took 43·2 per cent. of the linear yardage exported in 1913 and 28·9 per cent. in 1925. In grey goods India's percentage was 62·9 in 1913 and 45·9 per cent. in 1925; for bleached cottons the percentages were 38·3 and 29·2; for prints 38·2 and 13·0, and for goods dyed in the piece 24·8 and 13·4. The goods taken by India, as shown by the post-war particulars, were substantially lighter, somewhat wider on average and of cheaper grade than the mass of other exports.

Some details of the comparison are given in the following table:

EXPORTS OF COTTON PIECE GOODS, 1925

	Grey.	Bleached.	Printed.	Piece-dyed.	Yarn-dyed.	All kinds.
Exports to India:						
Million sq. yards	669	484	154	106	8	1421
Million £	14·2	11·3	5·2	4·3	0·3	35·3
Per 1000 sq. yards:						
Value £	21·2	23·3	33·8	40·5	41·1	24·8
Weight lbs.	157	120	159	197	188	148
Linear yards	892	915	1154	1207	1054	940
Total Exports:						
Million sq. yards	1381	1484	646	731	172	4414
Million £	35·0	44·0	25·4	37·2	7·9	149·6
Per 1000 sq. yards:						
Value £	25·4	29·7	39·5	51·0	45·8	33·9
Weight lbs.	180	178	178	232	231	190
Linear yards	942	1023	1195	1124	1175	1045

The decreased importance of India might, therefore, mean that the average grade or quality of the different classes of piece goods was higher in 1925 than in 1913 by an amount serious enough to affect the calculation of average prices and hence of volume of trade. Further, it appears at least probable that the India purchases are of higher grade goods than in 1913, and the principles adduced do not apply to India alone.

It may be interesting to show the results of separating the Indian market and the Far Eastern markets (China and Hong Kong, Japan, etc.), in both of which the takings have been reduced in strikingly greater degree than in our overseas markets generally, in calculating the aggregate change in values and in the volume of

trade. The Dutch East Indies, Straits Settlements and Ceylon have not shown so marked a reduction in their purchases as India and China, and the figures for India, China, etc. given below are not inclusive of the exports to the markets lying between India and China.

	Million linear yards exported.		Value per 1000 linear yards.		Total Value.		
	1913.	1925.	1913.	1925.	In 1913.	In 1925.	1925 yardage at average values of 1913.
			£.	£.	Million £.	Million £.	Million £.
To India, China, etc.:							
Grey . . .	1748	620	11·1	23·9	19·4	14·8	6·9
Bleached . .	1057	538	12·4	27·0	13·2	14·5	6·7
Printed . .	507	196	12·6	30·3	6·4	6·0	2·5
Piece-dyed . .	475	172	17·3	44·5	8·2	7·6	2·9
Coloured Cottons.	44	12	17·0	42·1	0·7	0·5	0·2
To all other markets[1]:							
Grey . .	610	680	13·2	29·7	8·0	20·2	9·0
Bleached . .	988	980	14·1	30·1	13·9	29·5	13·8
Printed . .	724	576	14·3	33·8	10·3	19·5	8·2
Piece-dyed . .	676	651	20·0	45·5	13·6	29·6	13·0
Coloured Cottons.	246	190	16·5	38·7	4·1	7·4	3·1

[1] Except the Irish Free State in 1925.

The aggregate value at 1913 rates of the cotton piece goods exports of 1925, calculated as indicated in the above table, amounts to £66·4 millions, a result practically identical with that obtained by a similar calculation made from the total yardages without distinction of the different classes of goods. The calculation without separation of the two groups of markets gives £64·6 millions, the difference being 2·8 per cent. A calculation dividing the world's markets into eleven geographical groups and carrying out in that fuller detail the procedure indicated in the above table affects the result but slightly, the figure of £66·4 millions being raised to £66·7 millions. There are indications that the character of the goods taken has changed in many markets.

The same class of consideration, as has been illustrated in the case of cotton goods, applies in other cases, although the outstanding illustration of the changes in make-up of goods included under one and the same heading in the Trade Accounts which is afforded by India in the case of cottons is not available in every, if in any, case.

In the case of Machinery, the very conception of a standard

unit by means of which to measure quantities of the various classes of goods included in the group is far from easy. Numbers of machines and weight of machines are alike inappropriate, and the measurement of the average price-change is at best a rough approximation. In considering the general position, however, it is not without significance that Electrical Machinery represented a tonnage larger by over 23 per cent. exported in 1925 than in 1913, the value per ton being about double that of 1913, as was also the case for Agricultural Machinery and for Boilers and Boiler House Plant, in both of which the tonnage showed decreases. Prime movers other than electrical also fell off in tonnage, but it is a striking feature of the 1925 record that 69 per cent. of the tonnage and 66 per cent. of the value was in respect of internal combustion engines. They were not shown separately in 1913.

The figures relating to sewing machines show a reduction in the weight per machine of about one-tenth between 1913 and 1925.

To pursue comparisons of this kind further would take more space than is available. In the examination of several groups there has been found a tendency for the relative importance of markets to fall in which the cheaper classes of goods of a given description were sold. An example of the opposite is printing paper. In this case the exports to Australia and New Zealand were 38 per cent. of the total weight exported in 1913 and 74 per cent. in 1925. The average value was below that of other principal markets in 1913 and remained in that relative position in 1925. The increase in average value of the exports will, in these circumstances, be likely to under-represent the rise in values per unit of similar commodities.

If the detail of the various groups of exports, when worked out in the manner suggested by the available particulars of the examples selected, should bear out the suggestion made, namely, that the average quality of articles similarly described in our export record has been higher recently than before the war, a suggestion entirely consistent with the known tendency towards the establishment of the simpler forms of certain manufactures in countries in which no manufacture of those kinds, properly so called, had existed, it would follow that the relation of the volume of our exports at present to those of the best pre-war year, 1913, is not one showing a reduction of 25 per cent. or nearly that, as the simple arithmetic suggests, but a reduction of notably less magnitude.

It may be questioned, too, whether there may not be cause

for satisfaction in securing a return per unit of product of our industries increased in greater proportion than the cost of the materials we have to purchase for its manufacture, if this be the meaning of the average increase of 87 per cent. in the twelve years per unit of manufactured commodity exported, while the market prices of materials in general showed an advance of barely 55 per cent. But is it the meaning? Let us illustrate this from the case of cotton. In 1913 the quantity of cotton retained (*i.e.* imports less re-exports) amounted to 19,167,000 centals and in 1925 to 18,141,000 centals. A careful consideration of the data available for 1913 points to the conclusion that, in addition to large stocks on hand at the beginning of the year, about a fifth of the available imported cotton was used for purposes not covered by the exports of "Cotton Yarns and Manufactures." For 1925 a similar calculation assigns about one-third to those other uses, including cotton used for hosiery and apparel exported. For 1925 the variation in stocks was not important. These estimates mean that the weight of the cotton in the cotton goods exports of 1925 was only about 21 per cent. less than in those of 1913, a conclusion not obviously consistent with the calculated reduction in "volume" of exports by 30 per cent. in the latter year compared with the former. The known weights of exports hardly admit of decreasing the estimate of cotton used for making them in 1925 by any important amount, while an increase in the estimated weight for export purposes in 1913 requires an assignment to "home" uses of a reduced amount. The resulting comparison of the weights for "home" uses in 1913 and 1925 would show an increase difficult to reconcile with the apparent facts, particularly in view of the growing use of artificial silk.

If the calculations mentioned are approximately correct, the imported cotton fibre contained in the exports of 1913 cost about £49 millions and that in the exports of 1925 about £76 millions, an increase of 55 per cent., while the excess in the value of exports over the cost of the fibre in them would be £77·3 millions and £121·1 millions respectively, an increase of 56·6 per cent. These results, however, depend for their validity on unproved hypotheses.

If the comparison of the general increase in wholesale market prices of industrial materials with the substantially greater relative increase in the values per unit of manufactured goods exported means that our cost of manufacture is too great, it would be a serious symptom. If it means that the world is ready to pay more highly for the kind of work done in this country than for work done in securing natural products, that might be matter for

some satisfaction. Clearly we need more information to enable us to determine the significance of the figures. To secure it means challenging the impatience of questionnaires which is often pointedly expressed in the public press and in speeches at gatherings of the classes of persons to whom those questionnaries must be addressed if they are to be of any use. The defects of the pre-war official records, which limit our confidence in comparisons with that period, are now past amendment. It has been suggested that private records may survive, the use of which might throw some light into the corners left dark by the lack of detail in the older official statistics. Even with such help important defects must remain. If, however, we take care to improve the official records of the trade of our own time, it will be possible to render future comparisons with the present, based on the data officially collected and published, deserving of a confidence which cannot be placed in some features of like comparisons of the present with the past.

A. W. FLUX

THE COAL PROBLEM AS SEEN BY A COLLIERY OFFICIAL

THE most disconcerting factor in connection with the coal problem appears to be the tendency to assume that the question is of a local or national character. Britishers view and discuss this matter as if it were peculiar to this country alone. The same point of view is taken up in other countries. Germans and Americans, for example, think, that if the miners worked harder, the problem would be solved in their particular countries.

Perhaps the first essential is to clear the ground of accumulations of misleading data, and incorrect conclusions, that obscure the view and bar the way to genuine progress. Let me say a little from this point of view about the eight-hour day, a remedy which has been responsible, probably, for misleading more people inside and outside the industry than any other that has been put forward. This is largely attributable to the inefficiency of the Mines Department, which publishes unreliable data that mislead the public and incidentally malign the miners.

The coal-mining industry of Great Britain has been operated for a period under the Eight Hours Act. Why is it that comparative figures, in respect to production and costs, have not been prepared for both periods before and after the Act? Probably the answer is, that the people who compile these figures do not realise their proper significance. The output per man in the coal industry since the year 1914 has often been compared with some period which might be the year 1914, or some year previous to that date. But the Mines Department has published no comparative figures in respect to outputs prior to the year 1914. Sometimes the output per man per day for 1914 is given at 20·32 cwts. This is misleading, as the figures relate to the month of June alone; those for the rest of the year are not available, and if they were, would be of little value, for the following reasons.

The output per person per shift as between the years 1913 and 1924 shows a reduction of 4·72 per cent. when compiled along the lines of the statistical branch of the Mines Department. This maligns the miners, and has led them to be branded as slackers and shirkers, inasmuch as the coal hewers, who are the colliers proper, are working harder, and with better effect, under the

seven-hour day than they did previously under the eight-hour day. These men are not only producing the same coal output in seven hours as they did in eight hours, but are producing more. Although the coal output figures of the Mines Department are against the miners to the extent of 4·72 per cent., the appropriate figures are in their favour to the extent of 1·75 per cent. These figures show that since the introduction of the seven-hour day the efficiency of the coal hewer has been increased by approximately 16 per cent. I will not say that this is entirely consequent upon the introduction of the seven-hour day, as the available statistics, as previously demonstrated, are not sufficiently exhaustive for the purpose. The misleading character of the output figures of this Department is due to the unsatisfactory way in which these important statistics are compiled. Two instances of this kind will suffice:

> (*a*) There were nearly 17,000 fewer men employed underground during 1918 than during the previous year, but there was an increase of 4000 persons employed on the surface.
>
> (*b*) There was an increase of over 10,000 persons employed on the surface during 1924 as compared with 1923, although there were less men employed underground.

In both these cases the reduced number of men underground had their output as calculated adversely affected by the increased number of workers employed on the surface. Similar instances occur underground; but Government mining statistics do not provide for their ready detection.

Before leaving this phase of the question, it may be of interest to quote another case where a reduction of hours resulted in an increased output of coal upon the part of the miners. There were about 34,000 miners employed in the Illinois coal-field, U.S.A., from the year 1894 until 1900. During the years 1894–1896, they worked a ten-hour day, and during this period their output averaged 2·7 tons per man per day. After this they worked an eight-hour day, and during this period their output increased from 2·7 tons to 3·2 tons per man per day. More than this, the men worked more regularly, and on an average 198 days per year, instead of the 184 days they worked previously.

Under Ten-hour Day.

184 days at 2·7 tons	= 496·8 tons per man per year.
496·8 × 34,000 men	= 16,891,200 tons total output.
"Ten Hours." **Total Annual Output**	= **16,891,200 tons.**

Under Eight-hour Day.

198 days at 3·2 tons	= 633·6 tons.
633·6 tons × 34,000 men	= 21,542,000 tons.
"Eight Hours." Total Annual Output	= 21,542,000 tons.
"Ten Hours." Total Annual Output	= 16,891,200 tons.
Reduction in hours increased the output by	4,650,800 tons.

It would seem, therefore, that a reduction of 20 per cent. in the length of the working shift resulted in an increase of nearly 28 per cent. in the total annual coal output.

It has hitherto been too readily assumed that a reduction in working hours connotes a reduction in output. It has been shown that this is not always the case, but that there are instances where the men, in consequence of shorter hours, feel more vigorous and, without knowing it, put more energy into their work. This is what may be called an economic working day, and is of mutual benefit both to men and employers. If a man produces more in seven hours than he would in eight, what point is there in compelling him to work eight? If the British miner works an economic day, that is, a day in which he gives the best results, what concern should there be if a German, French or American miner works a longer day?

In this connection it may be permissible to draw attention to the futile comparisons so frequently made between the miner's working day and the working day in other occupations. An incident that came under my notice recently will help to illustrate this point. A squad of colliery officials was detailed off for a period to fill small coal into trucks for use of the boilers during the recent strike. They were kept busy, and managed to tire themselves out every day by the end of the shift. But this did not prevent a certain two of these officials disputing with one another over certain trifles, and this was of daily occurrence. After a time the supply of small coal at the surface became exhausted, and they had to go underground to cut coal in rather a warm place. I saw them some time afterwards and asked them jocularly if they still quarrelled, when one of them replied, "Oh, damn, we are too weak to speak." And this was literally true; the conditions under which these men worked were such that the perspiration boiled out of them at the least exertion. Their clothes were completely saturated with moisture in less than an hour, and this so enervated the men that they had no energy or desire left for unnecessary speech. When you know the conditions under which the miners work, any comparison as to the length of the working day in this and other occupations is manifestly unfair,

as there is no comparison, say, between the miner and a journalist, commercial traveller, railwayman, docker and so on. The miner goes down the pit to work and not merely to fill in time.

Modern machine mining is not conducive to ca' canny on the part of the men. It can, under normal conditions, be easily detected and dealt with. But it must be admitted that the matter is not so easy to detect or deal with under abnormal conditions or the older methods of working.

It has been frequently argued, that if the mines were State-owned, all our mining troubles would disappear; that the miner would have higher wages and better conditions, and the consumer cheaper coal. And still further, that the mines would be safer, and as a consequence there would be fewer accidents.

It would be well to examine these claims, and to do this we will take the industry as it stands. The following figures will be used; they are taken from the statistical summary of output, costs, proceeds and profits of the coal mining industry for the quarter ended March 31, 1926.

	Tons.	Per ton.
Tonnage disposable commercially	60,425,386	
	£	*s.* *d.*
Wages (including subvention)	37,230,611	12 4
Wages (excluding subvention)	28,765,639	9 7
Stores and timber	5,399,022	1 9
Other costs (Management's general expenses)	7,757,883	2 7
Welfare Fund	273,771	1
Royalties	1,579,274	6
Total costs	52,240,561	17 3
Subvention	8,464,972	2 9
Commercial disposals	47,692,034	15 9
Credit	4,278,124	1 3

The percentage of unemployment in the coal-mining industry covered by this period varied from 8 to 10 per cent.

It would be interesting to know, in the light of the figures given above, how the exponents of nationalisation propose to produce cheaper coal and at the same time increase the wages of the miners. It can be done by throwing more miners out of employment. And this would also be the effect of the much-sought-for reorganisation, and to some extent of unification.

It will be seen from the foregoing table that the tonnage disposed of commercially was 60,425,386 tons, and that the sum received for it was £47,692,034. It will also be seen that this sum was insufficient to meet the wage requirements of the industry by £8,464,972. The benefits claimed for nationalisation, unification and reorganisation are to all intents and purposes identical,

namely, cheap coal for the consumer; higher wages for the miner; and in the case of nationalisation, greater safety in the mines. It is doubtful even with all the economics that may be affected by one or all of these schemes whether the saving would be more than a couple of shillings per ton.

But the point to be borne in mind is, that if you do save 2*s.* per ton, this will not affect the present position. Coal has lately been sold under cost price to the extent of 2*s.* 10*d.* per ton. In some districts this figure is as high as 5*s.* 2*d.*, but the average for this country is 2*s.* 10*d.* In what way will nationalisation, unification or reorganisation make good this 2*s.* 10*d.* per ton? Where will it come from? Here you have it demonstrated, that the total amount of money paid for coal, at the prices ruling lately, to the coal-owners of the United Kingdom is insufficient to pay the men engaged in the industry a reasonable wage, even if they were paid the whole of it. But it is argued, if we produce cheaper coal we will sell more of it, and thus attract more money into the industry to be paid in the form of wages. This theory has so often been put forward that it is worth while to examine it.

We might possibly sell more coal in foreign markets, just as we did in the early part of the present year, but it would not be enough to affect the position. We should only do this until competing nations had devised some means of underselling us. By adopting nationalisation the only difference will be, that you will have intensified the struggle by introducing more powerful protagonists, and possibly at the same time aggravating the unemployment problem as well. You will undoubtedly, if you reduce the price of coal sufficiently, capture a portion of the coal export trade of some other country, probably that of Germany or America. But it will be Dead Sea fruit. The foreign consumer alone will benefit. You will sell more coal, but you will get less money for it.

The disastrous nature of this policy is exemplified by the export figures for the United Kingdom for the March quarter 1924 and 1926.

Coal Exports.

March quarter.	Quantity.	Average Value.	Total Value.
	Tons.	*s.* *d.*	£
1924	15,705,950	24 4	19,270,422
1926 . . .	13,190,584	21 7	12,031,042
Reduction	2,515,366	Loss	7,239,380

It will be seen that in this instance the reduction in price did not arrest a falling demand, but that a reduction in output of 2½ million tons took place. This was accompanied by a loss of over 7 million pounds sterling. Thus it will be seen that lower prices of coal do not always mean increased demand.

A comparison of the March quarter of 1925 with that of 1926 is also instructive.

Coal Exports.

March quarter.	Quantity.	Average Value.	Total Value.
	Tons.	s. d.	£
1925	13,102,317	21 0	13,803,726
1926	13,190,584	18 2	12,031,042
Increase . . .	88,267	Loss . .	1,772,684

As will be seen, our coal exports increased as a result of the combined influence of a reduction in price, and the fear of an impending stoppage, by 88,267 tons. But it would have been far better if the coal had been left in the earth. We gave the foreign consumer more coal but received less money for it in exchange. The annual figures for the coal industry as a whole, in this country and America, further emphasise the conclusion that the contention that cheap coal's proving a solution of the coal problem is an economic fallacy that cannot be founded on, or supported by, fact.

According to the statistical summary of the coal industry for the March quarter 1926, the subsidy amounted to 2*s*. 9½*d*. per ton; it was 3*s*. per ton for the preceding quarter. We will assume that it is still 3*s*. per ton. This 3*s*. per ton is to be taken off on the ground that the subsidy is economically unsound, and the men are expected to make good this reduction by greater intensified effort, either by longer hours or in some other way. One of two things must happen :

(*a*) Either the same number of men must produce more coal, or,

(*b*) The same amount of coal must be produced by less men.

The first alternative raises the problem of producing and disposing of the extra coal. The second raises the unemployment problem. You will be throwing more men on the unemployment market, and also pits out of commission.

Is this a wise policy? But to get back to the first consideration, namely, that the same number of men must produce more coal. If this is successful, this will very effectively prevent any of the unemployed miners re-entering the mines, or any of the mines coming back into commission. It would mean this, that the present number of men engaged in the coal-mining industry would have to increase their total annual output by 50 million tons. And that would be necessary merely to maintain the present rate of wages. But we know that we could not get rid of 50 million tons of coal at present prices. We will therefore have to reduce prices sufficiently low to induce consumers at home and abroad to purchase this extra 50 million tons of coal necessary to make up the difference due to the withdrawal of the subsidy. But if we do this, and, say for argument, that a reduction of 3*s*. per ton is sufficient, we shall be compelled to produce and dispose of a further 50 million tons to make up this reduction of 3*s*. per ton. Is there anyone so optimistic as to believe that the men and mines now employed can produce 100 million tons more of coal with the same costs? That is, that 335 million tons of coal can be produced at the same costs at which 235 millions is now being produced?

There remains the problem of the disposal of this output, even if it could be produced. The highest coal output ever produced in this country was 287,430,000 tons in 1913. The annual average, however, is about 260 million tons. It will be seen, therefore, that the output of the mines of the United Kingdom has never reached the 300 million tons mark. We are asked, however, to produce 335 million tons of coal per year at the same cost as we now take to produce 235 million tons—100 million tons less. And it is expected that a 3*s*. per ton reduction in the price of coal will induce consumers to buy this extra 100 million tons.

The question next arises, how much of this 100 million tons can we unload on the home market, and how much upon the foreign market? We will take the foreign market first. During 1925 this country exported 3½ times as much coal as Germany, 20 times as much as France, and 20 times as much as the sea-borne coal export trade of America. The approximate figures in each case are as follows: Great Britain, 68 million tons; Germany, 20 million tons; France, 3½ million tons; U.S.A., 3½ million tons (sea-borne). This latter does not take account of the 20 million tons approximately sent overland into Canada. Suppose we captured the whole of the coal export trade of Germany, France and the United States, that would only mean 27 million

tons, if we had the whole of it—an impossible assumption. There still remains the problem what to do with the remainder of the 100 million tons—73 million. Will any one argue that we can unload this upon the home market by reducing the price by 3*s*. per ton? Further, would anyone argue that this quantity of coal could be unloaded on the home or any other market at any price?

In so far as any increase in sales fail to make up for the reduction in price, so much will be the loss to the industry, plus the costs necessary for the increased output, such as timber and stores and so on. And each succeeding reduction will only serve to intensify the problem and render it still more acute. The policy of cheapening coal as a means of increasing the revenue of the coal-mining industry is, therefore, an utterly hopeless proposition.

What would be the effect of a reduction in the price of coal upon its consumption at power houses, gas works, railways and metallurgical works? Would it stimulate consumption? In the first three, not at all; in the last named, hardly any appreciable difference under the most favourable circumstances. All these concerns require a definite amount of coal. Power houses require sufficient to produce the power that will be consumed by consumers. The quantity of coal used rises and falls with the amount of electricity used, and has no close connection with the price. Similarly, at gas works the amount of coal used depends upon the amount of gas required by consumers. The annual consumption of coal for gas-making purposes ranges around 18 million tons. In respect to railway consumption the case is somewhat similar. The annual consumption of coal on railways stands very consistently around the 13 million tons mark. The amount of coal used on locomotives depends upon the number of trains, the length of the journeys, the weight of the trains, and the gradients over which they have to be drawn. And this does not alter very much from one year to the next. If coal were cheaper, so much the better for the shareholders of these concerns and the consumers of their products. The miners would not benefit, neither would the colliery companies.

In face of the foregoing, I think it will be agreed that the policies of the past must be abandoned, as no policy or course of action yet proposed by either side will restore the industry to an economic basis. Both sides aim at producing cheaper coal, the one by nationalisation, unification and reorganisation; the other by increased production and longer hours. Both will fail, even

if they accomplish their purpose in producing cheaper coal. Coal has been getting cheaper day by day without the community being aware of it. Twenty years ago it took 18½ lbs. of coal to generate a unit of electricity.[1] Suppose we compare this performance with present-day practice. Last year (1926) the average consumption in Great Britain was 2·53 lbs. per unit of electricity. There is, however, one station in this country generating electricity with a coal consumption of 1·51 lbs. per unit. The best American practice is 1·99 lbs., which obtains in the State of New York. What effect has this upon the coal problem? The present electrical output of this country is 7,000,000,000 units per annum, and to generate this quantity, 8 million tons of coal are consumed. This represents a saving of 50 million tons of coal per annum as compared with two decades ago—a saving that is due to improved engine and boiler design in conjunction with improved feed-water treatment, and utilisation of waste heat at the boilers. It means that by the combined efforts of mechanical, chemical and electrical engineers, 8 tons of coal now do the work that formerly required 58 tons when used for power purposes.

If the whole of the power stations of this country were of the same high standard of efficiency as the one referred to, there would be a further yearly saving of 3,300,000 tons of coal. It is predicted that in the course of fifteen years' time this country will consume 21,000,000,000 units of electricity annually. This would, upon the practice prevailing in 1903, require 174 million tons of coal; but with the application of the best present-day practice, a saving of 160 million tons of coal can be effected. This represents considerably more than 50 per cent. of our total annual production.

Again, gas companies of the United Kingdom as a consequence of improved technique now produce more gas with less coal than they did formerly, and in this way effected a saving of 7,000,000 tons of coal during 1925 as compared with the year 1903.

As an indication of the effect of improved engine design upon the consumption of coal, it may be interesting to note that condensing engines require one-half the coal required by non-condensing engines. An enormous saving is thereby ensured by mere improvement in engine design, and this does not take into account the saving that may be effected by improved boiler construction and feed-water treatment. Under this last heading alone it is being claimed that one ton of coal in five can be saved.

The same thing is going on in all countries; we will take

[1] George Hardie, M.P.

America as an example. The coal output of the United States has fallen by considerably more than 100 million tons per annum in the course of six years, and this at a time when the general industrial prosperity of the United States has been the envy of other nations. This emphasises the fact that the depression in the American coal-mining industry is not due to depression in other industries, but is due rather to the more scientific use made of coal in those industries. In Chicago a dollar will now buy eight times as much electricity as it would buy in 1900. During 1924 the railroads of the United States carried double the quantity of traffic they did in 1914, but with practically no increase in the amount of coal used. In the manufacture of pig iron, during the six years, 1918 to 1924, a saving of 9 per cent. in fuel consumption was effected by improved methods. The saving in coal due to improved methods in the recovery of gas, tar and light oils since 1913 has amounted to 11 per cent.

Over longer periods the changes are more pronounced; the Edison Illuminating System of Boston effected a saving of 75 per cent. in their fuel consumption in a little over two decades. The Commonwealth Edison Co. of Chicago effected a saving of 70 per cent. during the same period. The substitution of bye-products for beehive coke ovens has resulted in a reduction of 17 per cent. in the unit fuel consumption. Again, although the output of electricity in the United States during 1924 was higher than during the previous year, it required six million tons of coal less to produce it. Had there been no improvement in the utilisation of fuel in the United States during the last eight years, the demand for bituminous coal would apparently be 60,000,000 tons greater than what it is to-day.

Let us pause just here and ask ourselves: What effect has this upon the coal-mining industries of the world? Are they better circumstanced because 1 lb. of coal will now do the work which formerly required 12 lbs. of coal? Are they better circumstanced in view of the fact that 50 per cent. more household gas is recovered per ton than was the case in 1903? It may be noted in passing, that these remedies have not proved the salvation of the German coal-mining industry, which is in a state equally as bad as our own.

The above are a few of the causes of diminishing markets for coal. Other causes of diminishing markets are:

(1) Tramways have become obsolete. This has closed permanently a big market for steel rails, and also for steel for rolling stock.

(2) Railways are becoming obsolete for purposes other than long-distance passenger service and heavy mineral traffic. But there is a distinct possibility that this advantage even may largely be denied them in the near future.

(3) The Seven Seas have been covered with shipping, quite sufficient for the world's needs, and the possible need for future development is relatively small. The only ships that will be required are little more than replacements, which will be necessary owing to the fact that some ships will be sunk and others become obsolete.

In view of the diminishing markets for steel, and as a consequence a diminishing market for coal, coupled with the more scientific methods for using coal, there is little hope for the restoration of the pre-war demand for this commodity. This fact must be recognised, as otherwise we shall only delude ourselves, and delay the adoption of a permanent and effective solution so far as the coal industry is concerned.

The next phase of the question that should occupy our attention for a brief space is, that of the more efficient means of producing coal. It will be agreed that this, in a general way, is a desirable consummation, but it cannot be regarded as a means of solving the problems of the coal industry. Any tendency in this direction will, in itself, tend to intensify these problems. For purposes of comparison in this connection we must, for obvious reasons, look to the United States of America. Nature has been kind to America in this respect. She has been blessed with great deposits of coal, lying in thick seams, easily accessible, and with roof and floor conditions especially favourable to machine mining on an ambitious scale. These conditions do not apply to the same extent in this country. This is exemplified by the fact that the American miners carry one unproductive worker to every two hewers. The Durham miners, on the other hand, each carry two unproductive workers. In this respect the Durham miner carries four times the burden of his American confrère. The State of Kansas seems to be especially favoured in this respect, the miners of which carry one unproductive worker to every three miners—a burden one-sixth that of the Durham miner. The annual output per person in the American coal industry is 682 tons (1923), in the British coal-mining industry it is 229 tons (1923). The output per man shift of the American miner is therefore three times that of the British miner.

Obviously there can be no comparison in respect to output under such conditions. Yet, in spite of all its advantages, the

American coal industry is similarly placed to our own. The American miners have to struggle against falling wages, and have to resort to strikes for this purpose, just the same as the British coal miner. Why is it, in face of the high output of the American miner, and the comparatively cheap production of American coal mines, that the coal-mining industry of America is like our own—a declining industry? The annual output of the American mines fell from 579 million tons in 1918 to 483 million tons in 1924; a decline of 96 million tons. And this in spite of the fact that the pit-head price of American coal is one-third of what it is in this country. If either country captured the whole export trade of the other, this even would not be sufficient to solve the problem in the successful country. The combined coal export trade of Great Britain, Germany, France and the United States (sea-borne) did not during last year (1925) reach the 100 million tons mark.

The point I wish to emphasise is, that the miners have put too much hope on the increase of the efficiency of the mines, and that it is the general high state of efficiency of the mines of this and other countries, coupled with improved efficiency in the use of coal, that is responsible for the present deplorable economic situation. From the point of view of their own self-interest they should concentrate their attention upon means of sharing the advantages already gained by the improved efficiency and greater economy that has already taken place.

The miners have been told by people less competent than themselves to speak upon this question, that water power and oil are the causes of the trouble in the coal industry. The water power now developed in Europe equals 28 million tons of coal, whilst the coal produced in Europe equals 517 million tons, *i.e.* about nineteen times as much coal power produced as water power. This shows that water power has so far had little effect upon the coal industry.

The possible development of water power in Europe, however, equals 190 million tons of coal, about one-third of the total power required. Water power in Great Britain will never exceed 10 per cent. of the power required. Lochaber and the Grampians, the two chief water power schemes in this country, save 600,000 tons of coal per annum. The Severn, if successful, would save 1¼ million tons of coal; approximately six or seven days' output of the South Wales coal-field.

The effect of oil has been much over-stressed. Oil is especially adapted for certain requirements; it will make headway in certain

directions, not on account of its cheapness, but on account of its adaptability for motor vehicles and road and air transport, and to some extent marine transport. For power purposes in stationary engines it has no advantages over coal. Industrial concerns are turning over from oil to coal at the present time in the United States. Oil companies themselves find it more economical to use coal than oil for power purposes.

It will be seen that the miners and mine-owners have during the past five years pursued a suicidal policy, the result of which has been to bring the miners to starvation wages and the owners to bankruptcy. The world markets are over-stocked with coal. This being so, why should this insane scramble for work and markets continue? We have had five years of it. Look around and see the result. Five years ago collieries were stopped in all parts of the country and the men requested to give promises of increased outputs as a condition of re-starting those pits. The promises of increased outputs were given, and were more or less successfully carried out. But what was the effect? The effect was that those collieries which resumed work on the strength of their promises to increase output, and were successful in doing so, succeeded also in pushing some other colliery out of commission. The workmen of these collieries had to make, in turn, like promises and efforts as a condition of remaining at or resuming work. Each time this was done it only served to intensify the struggle between one man and another, one pit and another, one coal-field and another, and one country and another. This senseless game has been going on for the past five years not only in this country but also in others.

Attempts have and are being made to control output in many other industries on an international scale; notably in respect to shipping, steel rails, steel tubes, cotton, and so on. The system of control will of necessity vary with the nature of the product and the character of the industry. A hard-and-fast rule cannot be applied to all industries indiscriminately.

The question now arises as to the best method of applying this lesson to the coal-mining industry. The crude method of restricting output designated as " ca' canny " is a thing of the past so far as coal mining is concerned, and has been given much more prominence than it deserved. The most promising and feasible solution appears to be the immediate introduction of a variable week throughout all countries affiliated to the Miners' International, pending the gradual reduction of the number of men in the industry. This would be far more effective than any

interference with hours would be, as an adjustment of hours would require legislative sanction, which would take time and complicate matters.

This solution could be operated by the Miners' International off their own bat, but it would be preferable in the interests of the miners, the owners and the industry generally if they co-operated with the owners in the different countries in this matter. This would be necessary to prevent the intrusion of capitalistic adventurers and others, who would be attracted by the improved conditions that would ensue, as otherwise it would tend again to depress conditions within the industry. All fresh entrants into the industry, either from the financial or manual side, would have to be regulated by those already within the industry. A tribunal of miners and mine-owners should be instituted to decide what fresh companies, if any, should be formed, and what pits sunk. And miners should be forbidden by their organisation from taking part in new undertakings not sanctioned by the tribunal.

By the plan outlined, strikes for increased wages would be obviated, and the industry would be freed from these continually recurring crises that do so much to dislocate and hinder trade. This scheme promises continuity of peace within the industry; it also promises to restore the industry to its former economic independence.

ALFRED MORGAN

FAMILY ALLOWANCES AND THE SKILLED WORKER

WITH the solidifying of social compunction, social justice and social organisation at the close of the nineteenth century, the labour contract ceased to be a simple buying and selling of factory-fodder which only took count of the worker as a producer. The claim for the "living wage" adapted to human needs grew more active in negotiations between employers and employed. Wages, in fact, were developing into a compound of payment for work done and subsistence allowance for the worker's family. With the further crystallisation of public opinion and of Trade Union bargaining power in the lower grades of labour, this subsistence element became predominant and the more urgent material needs overshadowed that element in wages which is the return to special skill.

During the war, the rapid rise in the cost of living hastened this tendency. Additions on a uniform cost-of-living basis tended to depress the skilled rate relatively to the unskilled. The Balfour Committee on Industry and Trade recently produced evidence that since 1914 there had been a greater percentage rise in the wages of unskilled than in those of skilled workers. Later, as the total return to industry and the workers' share of it did not increase, there was a further encroachment on the margin available for the skilled worker. The majority of recent wage settlements also tend to reduce differences in remuneration between the different grades within each industry.

The results have received only intermittent attention from the public. But they are sufficiently serious. An increasing number of skilled workers are migrating to unskilled industries or emigrating to other countries and a decreasing number of youths are entering skilled occupations. It is significant that the greater proportion of British emigrants taking up permanent residence in the U.S.A. are classed as skilled, and that recent immigration laws permitted the British Isles to supply three out of every five emigrants allowed to enter the country after 1926. A Trade Union mission to the States reports "Eighty per cent. of pattern makers in one plant were British and thirty per cent. of the machine shopmen." "Employers say quite frankly that they depend on Great Britain for their supply of

moulders." These immigrants were not "remittance men," industrial failures or social dregs. In addition to a large percentage of skilled artisans they included a number of superintendents and managers. The present disorganisation of the wage system is driving out invaluable elements of population to a country whose prosperity enables better prospects of economic advancement.

We cannot afford U.S.A. wages at a flat rate. But, as pointed out in recent evidence before the Coal Commission, "the necessity under our present system of providing through wages for the family needs of even the least skilled men whether they have actually families or not swallows up so large a proportion of the available resources that too little is left for the remuneration of exceptional skill." There remains a possibility that by a better *distribution* of the amount available for workers and by provision apart from wages for the "subsistence element" we might enable a closer adjustment of earnings to standard of work.

This separate provision is the purpose of family allowance schemes. Under the family allowance system the total family income would be composed of "the competitive wage of the bread-winner together with an extra amount provided in respect of dependents" (Mr. J. L. Cohen), the "extra amount" being paid either by the State through taxation or through a system of insurance or through industry. The system has been described as "the only possible way of combining a minimum wage based upon need with a possible maximum based upon effort and the value of a man's work" (Mr. Ramsay Muir).

What would be the reactions of family allowances on the income of the skilled worker?

At first sight, a weakness of family allowances would seem to be that at their introduction rates would probably be fixed at an amount which would be ineffective as far as the skilled worker was concerned. A criticism in *The Post* of December 15th, 1925, observes: "It would mean a move towards the fodder basis. Instead of making for a higher standard of life for all, it tends to depress each down to the bare allowance necessary to maintain each child." The supporters of the system have not yet indicated on what "needs" Mr. Ramsay Muir's minimum is to be based. The elasticity of the term "minimum" has baffled countless experts. When investigating cost of living according to "reasonable standards of comfort," in 1920, the Australian Commission on the basic wage,

after considerable discussion, confined their enquiry to " the needs that are common to all employees, following the accepted principle that there is a standard of living below which no employee should be asked to live." A family budget enquiry conducted in Washington by the U.S. Department of Labour considered that there were three levels: a " minimum of health and comfort level," a " minimum of subsistence level " and a " poverty level." The primary function of Agricultural Wages Boards in this country was defined as fixing minimum rates " based upon the cost of maintaining workers and an average family in a state of physical efficiency."

Some advocates of family allowances shirk the difficulty of varying needs by asserting that the motive idea of the scheme is the value of maternity and childhood " independently of all forms of productive services." But the moment will arrive when this reward to the abstracts of maternity and childhood has to be translated into payments to concrete wives and children with a concrete standard of living. Miss Eleanor Rathbone has said that the system " should provide for actual families." Actual only in numbers? Or also in needs? When the potential value to the nation of motherhood and childhood is eventually assessed in terms of hard cash the promoters of a scheme will have to decide whether the allowances shall be paid at a flat rate, and if so what standard shall be aimed at; or whether they shall be paid at differential rates, and if the needs standard of the family shall be judged according to the standard of the breadwinner's wages or grade of occupation.

The problem of the differential rate may be contemptuously dismissed by doctrinaires as a form of class snobbishness. But are class distinctions likely to be eliminated by a flat rate of family allowance which is relatively advantageous to the families of lower-paid workers and which in actual practice emphasises such distinctions?

Supporters of the system have not spoken with an assured voice on the question of differential rates. The hesitation shown by its leading exponent in advocating either method is sufficient indication of the difficulties involved. In an address to the Eugenics Society in 1924, Miss Rathbone said: " The above considerations point to the importance of introducing family endowment into this country in a form which permits the allowances to be so graded as to bear a reasonable relation to the standard of life of the parents. Otherwise a scale which might act as an actual bribe to parenthood in one class of

parents would altogether fail to remove the barrier in the minds of another. However much one may deplore the exaggerated differences in the standard of life of different occupational classes, so long as they exist it is impossible to separate the standard of the child altogether from that of its parents, and the attempt to rectify the inequality through family endowment would be to sacrifice many of the main advantages of the system. Lest this argument appear undemocratic, I may point out that an analogy is used in the Trades Union Congress Report on unemployment insurance by industry, to justify graded rates." Miss Rathbone went on to suggest that "a graded system would obviously be very much easier to achieve under an occupational system of endowment than under a State scheme" (paid for out of taxation or contributory insurance), but that this might be got over by grading rate of taxation or contribution as well as rate of benefits.

In cross-examination before the Royal Commission on the Coal Industry, December 1925, Miss Rathbone stated: "I should say that it is better to have a flat rate wherever you are dealing with workers in the same occupation. There might be difficulties in having a flat rate if you were dealing with the whole population. But there are merits, I think, in having a flat rate. . . . I do not think I have myself a very strong view as to whether it should be a flat rate or graded, but I think there is a very generally held view that at any rate within workers of the same occupation where they move up from one grade to another it would very much complicate the scheme if the allowances also changed. Also, the view is taken by many people that the human rights and human needs of each child are the same, and where you are dealing with allowances based on need and not with wages based on skill there would be no particular object in discriminating between the needs of one child and another." In her book *The Disinherited Family* she declares that "the grading of allowances to suit the different standards of life and eugenic needs of different sections of the population, which is essential if the full advantages of direct provision are to be reaped, will come about much more easily and naturally through occupational pools than under a State system, though it is technically quite possible under the latter" (p. 313). She makes the suggestion (p. 194) that it "may be necessary to make the State system a flat-rate one and secure the necessary gradation by supplementary allowances from an occupational pool for all the higher grade occupations."

The Family Endowment Society has made no recent pronouncement on the point. In its early beginnings in 1917, the majority of its Committee, when presenting a scheme of State endowment, held that the rate of endowment should be equal for all families, on the grounds that (1) The mother's responsibility is the same whatever the income. (2) The needs and the potential value to the country of the children are the same in all families whatever the income. (3) That the State should not give preferential treatment to certain classes, especially where these classes are defined by income.

The minority objected that a flat rate though on the surface giving equal treatment would in practice penalise the intermediate families, especially if the necessary funds were raised through income tax. They suggested a graded scale of endowment rising with income, *i.e.* with the amount of tax paid. They also pointed out that unless the rate of allowance rose with income, endowment would not affect the birth rate in those classes.

The majority apparently defined " needs " on the fodder basis to which the writer in the *Post* objected, and did not regard as " preferential " a flat rate which favoured the lower-paid grades relatively to the higher-paid.

The schemes in operation on the Continent have on the whole favoured a flat rate.

The French railway companies originally varied the amount of children's allowances in accordance with the amount of the worker's basic rate of pay and the size of the station. In 1916 they changed this to a flat rate with an income limit. The income limit was raised and finally abolished. Some municipalities pay allowances at a fixed percentage of their officials' salary. There is a constant tendency in France to raise or abolish income limits and to extend family allowance schemes to the " salariat."

Dutch Civil Servants, including teachers, receive an allowance at a fixed percentage of salary, as do the officials in certain German firms. In some mining schemes in Germany a higher rate of allowance is paid to hewers than to drawers and to drawers than to surface-men. Statistics compiled by Professor Douglas of Chicago University, comparing married workers' income in industries where the allowances are paid with that of the unmarried, show that the percentage increase has been much higher in the unskilled grades. In a few cases

in Austria the allowances were a percentage addition to wages, also in the Polish mines. In the Polish Civil Service the allowances were greater in the case of the more highly-paid officials. The Czecho-Slovakian scale was proportionately much greater for low-paid than for better-paid employees.

A Bill (which was ultimately defeated) drafted by the New South Wales Government in 1919, divided wage-earners into twelve wage groups, each successive group having one-twelfth deducted from the amount set. The reasons for adopting this tapering scale of benefits were given as follows: (1) Higher paid workers had a surplus available to take care of their children (which ignores the possibility that in many cases such "surplus" is the return for special skill acquired at some sacrifice). (2) That if the grants were not tapered some workers would lose in total income by increasing their wages.

In the New South Wales Parliament, in 1920, Dr. Richard Arthur advocated a flat-rate payment owing to the impossible amount of book-keeping, supervision and inspection involved by a differential rate. He maintained that any other scheme would breed discontent, jealousy and accusations of favouritism against the Administration.

The Australian Labour Government Bill of 1921 proposed allowances on the basis of income, the amount of the allowances being reduced by the amount of income in excess of the basic wage. Dr. Arthur objected to this on account of the vast amount of administrative machinery entailed and the lessening of incentive to increase income.

Professor Douglas advocates that, if allowances are to decrease with amount of income, the decrease should be on a tapering scale so that on a wage increase the worker will always gain more in wages than he loses in the form of allowances. But he admits that this method would be so complicated that it would be virtually impossible to administer.

The general opinion of French and Belgian Trade Unionists appears to be that the allowances should be at a uniform rate, but that there should be no income limit.

It has been urged that in an industrial scheme of family allowances "it would arise naturally that the allowances would bear some relation to the scale of remuneration and standard of living customary in the occupation." But this assumption disregards the innumerable gradations of remuneration and standards within any one industry and the "demarcation

difficulties " on which admirable arm-chair schemes of reform have foundered.

Others have argued that, as the remuneration of the higher grades frequently rises until the worker is approaching the age when his children are wage-earning, there is already a rough grading of income to needs which makes direct family maintenance less necessary in these grades. The argument ignores the fact that this remuneration is frequently a form of compensation, a return for early years of training at a price and sacrifice at a cost. It is unfair to make it serve the dual purpose of repayment for past " insurance " and payment for present needs.

Although a particular deficiency is no reason for prolonging a general deficiency and the present situation of skilled workers is insufficient ground for leaving untouched the maladjustments which might be remedied in other grades, the reactions of a scheme which only aims at benefiting the latter may be actively injurious to the higher grades. Opponents of family allowances invariably point to the danger that the system may be realised at the expense of the unmarried worker; few envisage the danger that it might be financed from the wages of the skilled whether married or unmarried.

The Family Endowment Commitee of Enquiry of the Women's National Liberal Federation were of the opinion that family allowance schemes " would clear the ground for an equitable settlement of wages as between different sections of workers." On the other hand, the Commercial Secretary to the British Embassy in Paris declared that " the difference in remuneration for qualities of work is being considerably narrowed in consequence of the normal grant of flat rates for cost of living bonuses and for family allowances as well as for housing provision under market rates, medical attendance and welfare benefits generally. The margins between skilled and unskilled wages are thus being systematically reduced and apprenticeship discouraged."

Nevertheless it seems probable that the endeavour to provide for the family of the unskilled worker through a " living wage " based on the needs of a fictitious " average " family of five persons has for some time past restricted the margin available for the skilled worker and his real family. Miss Rathbone, in her evidence before the Coal Commission, considered that " so far from family allowances interfering with the principle that men performing the more skilled work should be able to enjoy

a higher standard of living than the less skilled it actually facilitates this. Under the present system, many of the skilled workers if they have several children, must, in spite of their higher wage rates, be actually living at a lower standard than those of the unskilled who are childless."

Whatever the effect of family allowances on the present generation of skilled workers, there should be at least one important reaction on those of the future. In most countries where the system is in operation there is a tendency to extend the allowances beyond the regulation age in the case of young people who are continuing their education or serving their apprenticeship, thereby releasing them from the necessity of early earnings in relatively high-paid but unskilled occupations.

What of the eugenic reactions of family allowances on the higher grades of industry? To quote Miss Rathbone again: "I do not believe that anyone who has been in touch with the facts can doubt that on the whole the elements in the working classes who are restricting their families represent the cream and those who are not practising restriction the dregs." And further: "It will hardly be disputed that, speaking generally, the brain-workers and the skilled manual workers are likely to produce a higher proportion of children of good physical and intellectual calibre than the unskilled worker and the submerged tenth. They are also likely to give those children a better environment." Will the "cream" be perpetuated by an inducement which is relatively greater in the unskilled grades? At their inception the allowances will probably be too small to have any effect on the birth rate in the higher grades. As a French worker crudely questioned: "Croyez-vous qu'on fasse un enfant pour cent francs?" The situation is not merely academic. Lord Buckmaster recently pointed out in a debate in the House of Lords, that the birth rate per thousand for skilled labour was 153, for unskilled labour 247; and that "if you take the standard of intelligence measured by examination of the children in the schools, you will find that there is a descending scale of intelligence which is in exact inverse ratio to this standard of birth rate."

Without going as far as Professor MacDougall who urged that, as the higher occupations represented the "cream" in selected hereditary ability as well as in better environment and opportunities, family allowance schemes should be confined to them, it must be realised that those who advance the "value of mothers and children to the nation" motive will ultimately

be faced with the question " Is the value of the mothers and children in the lower grades (which derive a relative advantage from a flat rate) greater to the nation than the mothers and children of the higher grades ? "

Apart from these problems we are still confronted with the difficulties that if the allowances were paid at a flat rate the " average family " fiction will still dominate the wages of the higher grades and the welfare of wives and children in these grades will still be linked to industrial conditions; that, if there were grading in income groups, there would be disturbances at the margin of these groups; that the difficulties of grading and administration of a differential rate might be overwhelming even if its cost were not prohibitive.

Here, in fact, is matter for straight thinking before the family allowance system nears practical realisation. The foregoing outline is a landsman's attempt to mark a reef here and there. It is for experts to chart the passage.

O. VLASTO

THE HOLDING COMPANY IN AMERICAN PUBLIC UTILITY DEVELOPMENT

THE remarkable growth of public utilities in the United States during the last twenty-five years is one of the outstanding features of the great industrial development that has taken place within the country. In this unusual development the holding company has played a significant rôle. Prior to 1900 these industries were more or less in their adolescent stage of development. They were managed by well-intentioned but, owing to the youth of the industry, often inexperienced or inefficient men. The services furnished by these enterprises were barely sufficient to meet the fundamental needs of the time. However, in the brief period of a quarter-century the utility industry, in all its ramifications, has grown to giant proportions.

At the beginning of the century, for example, there were approximately a half-million customers of the electric light and power industry, while at present there are seventeen million. Electric output has increased from 2·5 to 55 billion kilowatt hours. Gas sales have advanced from 90 to 405 billion cubic feet. Telephone customers have increased from 2·3 to 14·3 million; an increase of over 500 per cent. Other data could be added in addition to these figures which show the enormous growth attained by these public service companies. In spite of this phenomenal development, recent conservative analyses show that the United States is only 10 per cent. electrified, while the gas industry has only been developed slightly in excess of 10 per cent. of its future possible expansion. During this period the value of investments representing public utility property has likewise increased proportionately. To-day the public utilities [1] of the United States have an estimated value of 46 billion dollars, or approximately 13 per cent. of the nation's total wealth. Steam railroads alone have an aggregate capitalisation amounting to about 20 billion dollars.[2] The nearest approach to these totals of capitalisation

[1] This term is used in the general sense and includes electric light, gas, street railway, water, telephone, and heating utilities, railroad, express companies, and other common carriers. Statute law in some states brings other services within the scope of the term, such as ice utilities, stockyards, cotton-gin mills, etc.

[2] The balance is distributed among the various other utility enterprises as follows: Electric light and power $7,500,000,000; street and inter-urban railways $6,000,000,000; gas, manufactured and natural, $4,000,000,000; telephone $3,000,000,000; water supply (with city plants), $5,000,000,000; other utilities, $500,000,000.

in any other organised productive industry or group of allied industries is found in the iron and steel business, in which the capital value in foundries and rolling mills amounts to 3·5 billion dollars. The capital invested in textile mills is 3 billion, while that devoted to the automotive industry is approximately 2 billion dollars. The total capitalisation of mining property of all kinds in the United States is about 7 billion dollars, a large part of which is in natural resources.[1] There are only several other industries which have capital requirements exceeding one billion dollars.[2]

In connection with this development consolidation of properties, through the agency of the holding company, has been a significant feature. During the past twenty-five years the increase in public utility service in the United States has been out of all proportion to the increase in population. However, in spite of this marked increase, the number of separate utility companies has shown comparatively little change. To-day many of the utilities are no longer independent operating companies but have consolidated into single systems. Consolidation among these semi-public industries may be accounted for by the fact that they are natural monopolies arising from peculiar properties inherent in the business. By consolidation low costs and reliable service are made possible through mass production, which permits the accrual of benefits to the numerous communities supplied by the utilities. Formerly the small town had a little plant which was overloaded and was able to give limited night service only, while the new unified service continues for twenty-four hours and is dependable at all times. Both rates and service are so adjusted as to permit the accrual of maximum benefits to the consumers and make possible economical industrial community growth.

This process of consolidation ordinarily occurs in two ways, viz. corporate and physical. Physical consolidation invariably follows in cases where the corporate plan of consolidation has taken place, if the properties are contiguous and can be economically connected. By means of physical consolidation former independent operating companies have been combined into a single physical unit. In the electric field few large efficient power stations, with high voltage transmission lines, have been

[1] Cf. U.S. Census Reports for data concerning relative capitalisation of productive industries.

[2] These include shipbuilding, slaughtering and meat packing, paper and pulp, printing, and petroleum refining. Considerable capital is invested in agriculture, including the value of bare land, homes and personal property, but a comparatively small proportion of this investment is devoted to productive facilities.

substituted for many small independent stations. This illustration is typical of physical consolidation in other utility industries.

The corporate or financial plan of consolidation brings together groups of otherwise unrelated and perhaps widely separated properties under the control of a holding company. This control is ordinarily effected through the purchase of outstanding stock. In a technical sense the holding company is a corporation chartered under the laws of one of the states with broad powers enabling it to acquire and hold securities of other companies, and to issue its own securities. Great progress has been made in the development of holding companies among public utilities in the United States during the past fifteen years. As a rule the primary aim of this device is to acquire all or a controlling majority of the outstanding stock, a certain percentage of the bonds and other general securities, and to hold continuously, as securities, notes for advances made in cash to cover current operating and construction needs. The holding company uses these different types of securities as the asset basis for the issuance of its own securities.

There are several kinds of holding companies according to their functions. They are the investment, management, engineering, supervision, financing, and combined operating and holding companies.

The investment holding companies have been quite numerous in recent years. They have been developed to acquire interests in the various public utility stocks solely for investment purposes. These companies rarely own control of the companies in which they are interested; their investments are usually limited to a small percentage of any one utility. They are merely holders of securities and function only in acquiring or selling such securities, receiving interest or dividends thereon and distributing the income to their own security holders.[1] Another such type of company has appeared in recent years which is organised to handle the distribution of securities of certain companies only. It does not exercise control or management of the utility companies. Companies of this character, however, are not strictly classified as holding companies.[2] Perhaps the closest analogy

[1] For example, the American Superpower Company, which is one of these large companies, limits its investment in any one company to 15 per cent. of the outstanding common stock of such company. Other large companies of the investment type are the North American Utilities Securities Company, Electric Investors, etc.

[2] Companies of this type are the Hodenpyl Hardy Securities Company, the Columbia Securities Company, the Associated Gas and Electric Securities Company, the Public Service Stock and Bond Company, etc.

to the holding company from the financial standpoint is the so-called "investment trust," which has played a rather important rôle in the financial and investment life of Great Britain for many years.[1]

The management and engineering companies have done a great deal in the development of public utilities. Their expert engineering knowledge has been a prominent factor in placing the utilities in the foreground. They have not only acted as constructive engineers for electric light and power plants, electric railways, gas and other public utilities, but they have performed the function of management agents of the properties with an exceptionally high degree of efficiency.[2]

The corporate or financial holding companies which either control, manage and operate, or supervise public utility properties have also been responsible for much of the indispensable achievement in public utility progress. In fact this kind of company has been the most effective in the unification of utility property.

In all there are approximately 150 public utility holding companies in the United States.[3] Some of these companies are not so large and control or manage single properties only, or small groups of properties. The gross annual operating revenue of forty of the major holding companies ranges anywhere from 741 million to 2·4 million dollars.[4] One reason why the holding company came into being has been the recognition that the public utilities are best adapted to serve the public when operated as a natural monopoly. By unified operation waste, duplication, and destructive competition can be avoided. This kind of operation also has the further advantages of saving labour, conserving capital, and modernising the service. As early as 1890 practical application was made of this economic principle in Milwaukee, Wisconsin, through uniting all the competing street railway companies and the electric light and power companies in that city.[5] As this

[1] See Report made by Mr. Leland Rex Robinson, American Trade Commissioner in London, in which reference is made to these investment trusts.

[2] The most prominent among such companies are: Stone and Webster, Inc., the J. G. White Management Corporation and its associated engineering company, Day and Zimmerman, Inc., Byllesby Engineering and Management Corporation, Charles H. Tenney & Co., the United Gas and Electric Engineering Corporation, etc.

[3] In the electric field the North American Company ranks first in extent of power plant capacity and energy production. In the manufactured gas field the Consolidated Gas Company easily ranks first, while the Public Service Corporation of New Jersey stands well at the front in the electric railway field.

[4] Cf. *Magazine of Wall Street*, July 17, 1926, p. 556.

[5] Henry Villard, then President of the North American Company, united these competing companies. It was the first instance in the United States in

idea of unification spread, systems were consolidated in large cities and later throughout the inter-urban and rural communities. With the development of the holding company many of the utility industries have thus changed from local to national enterprises which now extend their service over a large number of communities.

In the telephone industry this idea of a single and unified programme of operation, based on universal service, is perhaps most predominant. Most of the telephone service in the United States is controlled by one holding company, viz. the American Telephone and Telegraph Company. This concern in many respects is the largest corporation in the world. It controls a national telephone service through its subsidiaries comprising approximately 97 per cent. of the total telephone business in the country, and in addition has lines connecting some 9200 small operating companies. The annual gross operating revenue of this company is approximately 741 million dollars, and it has a total of 12,035,224 customers. This holding company is not simply an investment company, holding the stock of other companies, but it performs additional functions. It does the financing for all the subsidiary companies; furnishes engineers, operating and other experts; maintains a productive and protective organisation regarding its patents; employs a large staff engaged in constant research, and aims to develop the public relations of its subsidiaries. In brief it performs that service which is common to all the companies and leaves local management to the local operating companies.

In the electrical field similar conditions obtain. Electrical service, which formerly was available in urban communities only, now reaches out to the farm and the village, contributing in a large measure to the convenience and contentment of the rural and semi-rural population. Transmission lines to-day cover distances unheard of ten years ago, and link important sources of energy with large distribution centres. Practically all cities, towns, and villages in the United States of 5000 population and over, and 14,000 communities of less than 2500 population, now have electrical service.[1] The electric industry cannot expand to any appreciable extent through the reinvestment of surplus earnings. This is true more or less of other utilities. There are

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which electric light and power and street railway companies were supplied with current from a single central station system.

[1] See *Proceedings of the Academy of Political Science*, Vol. XI, January 1926, p. 149.

no large surplus earnings over and above proper returns in these industries, because state regulation throughout the United States confines earnings to what may be termed a fair return upon the fair value of the property. As a consequence of this, practically all capital for extensions and improvements in the electrical field must be furnished by present or additional investors. The growth and extension of electrical service, the adoption of new scientific methods of operation, and the employment of skilled management have demanded the investment of tremendous sums of capital. In addition to the already large capital investment, it is estimated that during the next ten years this industry will require at least one billion dollars of new capital annually. The main burden of securing these funds, no doubt, will largely fall upon the holding company. This new capital obviously cannot be raised piecemeal by utilities functioning separately, but must be provided for on a large scale by such agencies as the holding companies which are capable of performing this type of financing.

Community of interest and the concentration of responsibility and control are also essential. Through community of interest the use of electrical energy can be widely diversified, resources and finances can be accumulated, able technical experts can be procured, and a capable and efficient administration can be employed, all of which make for more economical service. The operation of individual small plants is uneconomical and expensive, and many municipally-owned plants all over the United States have either been sold or leased to holding companies. Electricity cannot be stored, but must be used immediately upon being generated, or it is wasted. Within recent years it has become possible to transmit electric power a distance of at least 300 miles, and this radius is constantly being increased. By electric transmission a large number of power users pool their power demands and supply them from a common source. The demand, therefore, made upon this source of power at any particular time is relatively small. The more the time is diversified among the electric consumers, the greater is the capacity factor and the smaller is the necessary investment in electrical equipment per customer, and the cheaper the current. The highest "capacity factor" in any community can be attained by supplying all the power needs in that community from a single electric power source or pool. The same principle applies to a common pooling of the supply of current among a number of communities. The greater the area and population electrically served by interconnected generating stations, the cheaper the current. Electric

service within a radius of practicable transmission should, therefore, be of the monopoly type. Competition lessens the diversity, lowers the capacity factor, and thus increases the cost per unit of electricity. Due to this fact such monopolies are expanding rapidly and consolidating from time to time. The holding company has been one of the potent agencies in this process.

When a number of diversified public utilities are brought together under effective control, there is a concentration of responsibility. This increased responsibility attracts a class of executives who otherwise would not be attracted, and who probably could not be obtained by a single utility. When the resources of a number of utilities are combined, it makes possible the assemblage of technical staffs consisting of engineers, economists, chemists, and other employees with scientific training. These men, working with greater resources and with a field richer in experimentation, can make contributions to the advancement of public utilities which are of the utmost benefit to the industry. To-day practically every holding company has officials who are thoroughly trained and who have had long years of experience in the practical phases of the public utility business. Grouped about these officials are other men highly trained and skilled in those branches of knowledge which relate and apply to public utility operations. These men exercise constant supervision over the activities of the local operating companies, tendering to the local managers and superintendents all the resources of a highly skilled and technical organisation which would not be available to a local utility industry except at a prohibitive cost.

Another function performed by the holding companies has been the development of public relations activities. This phase of the utility business has been stressed to a remarkable degree during the past five years. These companies aim to materially promote pleasant and cordial relations between the utilities and the public. One method used to accomplish this end is by encouraging consumers to become partners in the enterprise through the purchase of securities. These securities depend not only upon the earnings of individual isolated properties, but upon the earnings of a large number of properties with diversified activities and operating under various economic conditions, thereby assuring a more continuous and stable income. In times of business disturbances the holding company is supposed to have greater power in protecting the interests of its shareholders than have isolated groups. The limited savings of investors are judiciously distributed among many securities. In this manner

the law of averages stabilises the capital account of a well-managed company, and the risks of the uninitiated investor are much more widely distributed.

Bureaus have also been established and supported by holding companies for the purpose of further promoting sound public relations. These are functioning now in about three-fourths of the states. They distribute information regarding the everyday affairs of public utilities to newspapers, libraries, educational institutions, chambers of commerce, clubs, public officials, and bankers. These bureaus also furnish public speakers for lectures, educational work, broadcasting, etc., and supply films, lantern slides, and other such data as may be called for relative to the public utility business. An effort is made to eliminate the attitude of antagonism on the part of the public towards the public utilities, which was frequently fostered by the failure of the public to properly understand the fundamental principles that now control the public utility service. By this scheme the public is enlightened in regard to the character of the service, regulation, rates, capitalisation, and the value of the service furnished the customer. These features of the publicity service are supplemented by activities which aim to "humanise" the service. Employees are trained in habits of friendliness, courtesy, and cheerfulness with the purpose of establishing more sympathetic relations between the public and the utilities. Training is also offered in the economic phases of the industry in order that employees may have a clearer concept of the administrative and public relations problems, and thus be able to intelligently discuss them with people who are inclined to be critical of existing policies or methods.

That the holding company has decided advantages is obvious: greater extension and better adjustment of facilities to meet service demands; better maintenance of equipment; more efficient operation; mass production; specialisation of skill in management; concentrated buying power; economy of engineering and construction through a controlled construction company; procuring of capital on more advantageous terms due to the distribution of risks and direct access to the savings of the people through customer ownership. This centralisation of control and management of the public utilities has no doubt been one of the major factors in the increased industrial productivity in the United States in recent years, but nevertheless it has been accompanied by grave attendant evils.

The worst abuses of the holding company took place before

the system of public utility regulation by administrative state commissions had been established. This device of public utility organisation was widely used at first to effect the unification of urban traction and other urban public utilities. In most instances this consolidation of interest was desirable from the point of view of the public. It is probable that this end could not have been achieved at that time by any other means, even though the end was attained at a great cost. The abuses of that period created a feeling of antagonism on the part of the public against the utilities. Extravagant purchases and reckless over-capitalisation imposed heavy fixed charges which prevented efficient operation, checked the flow of capital for necessary extensions, eliminated such wholesome competition as would have made for cheaper service, incurred the ill-will of the public, imposed disastrous losses upon investors, and invariably led to the corruption of municipal politics. The practices of that era are now severely criticised, notwithstanding the fact that unification of service was a public necessity.

Consolidation under present conditions through the agency of the holding company also tends towards over-capitalisation, in somewhat the same manner as in the case of the earlier municipal utilities. This condition is general especially where state commissions have no control over the issuance of utility securities. The competition for the purchase of utility properties among the holding company groups is usually keen, with the result that the capitalisation exceeds the fair value for rate purposes, the properties being acquired at an excessive price. Each holding company expects that the service rates will be indefinitely continued so as to pay not only the existing fixed charges but also a return on the new securities, as well as profits to the holding company, the management, and the underwriters. Consequently the price paid for the existing properties is necessarily higher than justified for rate control, so that the consolidation is based upon an unstable financial foundation. The price of the local companies is also bid up on the basis of expected economies from the combined production and management. Frequently, too, many of the acquired properties are scrapped and replaced with modern facilities requiring new capital, and a return on the additional securities issued. Therefore the final burden of fixed charges and expected return is likely to consume the bulk of the saving realised from consolidation even at the then prevailing rates.

Furthermore, this process will intensify the speculative elements of securities. The future earning power of the holding

company under such conditions will be extremely uncertain and subject to wide fluctuation. If the state commissions which have direct control over the local operating companies allow a return merely on the new property, the entire value of the stock may be destroyed. Even in fixing rates for the local companies, the commissions may not allow a return sufficient to pay the interest on bonds, since a large proportion of the earlier properties have been scrapped. The value of the new securities issued for reconstruction may also be destroyed. These conditions will vary considerably from one system to another, and the result in each case may not always be as indicated; nevertheless in no case are the rights of investors sufficiently safeguarded to assure stability and prevent wide fluctuations in security prices. This speculative feature is likely to more than offset the advantage of a wide distribution of risks on the part of the holding company investors, to which previous reference has been made.

The holding company may also menace proper responsibility of managers to investors. By hiding profits under no par stock, by pyramiding holding company upon holding company, by financing heavily through bonds and non-voting preferred stock, it often happens that the investors who furnish nearly all the capital have little or no voice in the management. In this way the owners of a comparatively small amount of stock may actually control assets many times the value of the stock. Occasionally under the holding company device a new power development costing a stupendous sum of money is so planned that another holding company will ultimately control the entire enterprise without a cent of permanent investment in it. Under such a scheme the men behind the holding company are trustees of helpless investors. In such instances the securities of the holding company are offered to the public as particularly safe because of the wide distribution of risk of the combined properties. While the security of the holding company is ordinarily more stable than would be that of the subsidiary companies, nevertheless in this case the fundamental earning basis of the entire structure is more or less undetermined. Its safety in a large measure depends upon the future action of the rate-making bodies. This assumed consolidation of risk obviously does not furnish the kind of stability that is safe to offer to the investing public.

Another difficulty confronted in dealing with the holding company is the problem of effective regulation. A serious defect of the present type of public utility control in the United States is that commissions have direct control only over the operating

companies, *with little* or *no control* over *holding* companies. The managers of utilities and bankers maintain that the present system of regulation is a sufficient safeguard. Similar opposition was voiced against the regulation of operating companies twenty years ago. The holding companies have been used to a large extent as the financial agencies of the properties of the operating companies, and in many cases have evaded control. In certain specific cases they have also been employed for the continuance of financial manipulation which was so prevalent prior to the present era of regulation. Excessive returns are made possible by creating structures out of all proportion to the actual value of the properties included. Inflation of costs, of security issues, of fixed charges, and the possibility of bankruptcy will necessitate the paying of a high return on old securities in order to attract new capital. Practically all the statutes under which public service commissions regulate rates provide that the public utility, *i.e.* the operating utility, shall be permitted to earn a reasonable return on the value of the property devoted to public use. In other words, regulation at the source is supposed to prevent an excessive return on the actual value of the property. The difficulty, however, arises from the fact that very often the identity of the subsidiary operating companies is lost through the corporate structure of the intermediate holding company over which state commissions only have indirect control. The financial control by the commissions should be extended over holding companies to protect the public interest in the same manner as over operating corporations. Either the regulation of operating companies should be fundamentally changed or else the holding companies should be regulated. Perhaps both remedies are essential.

There is another potent reason why public control should be extended. By lengthening the distance of practicable transmission of electric power, state lines are transcended. It is an admitted fact that super-power through the grouping or interconnection of electric projects should be encouraged.[1] The holding company is perhaps the best potential instrument for this development. A typical holding company originally may be incorporated in one state, later re-incorporated in another state, and control a number of subsidiary companies operating in several other states. None of these subsidiary operating companies may

[1] This has been made possible principally through the development of transmission by alternating current first used in a practical way by William Stanley in Great Barrington in 1886.

operate either in the state of original incorporation or the state of later re-incorporation. Such a holding company through its subsidiaries is often able to build up an interconnected network of electric transmission lines and distributing systems covering parts of several states. A considerable part of such business is, therefore, interstate transmission.

By segregating this interstate business under the control of a holding company the operating companies are placed beyond the controlling powers of the state commissions acting separately. Congress has made no effort to control such interstate service, even if centralised control were desirable. Public control should be coextensive with the thing regulated. State regulation should be extended to deal adequately and constructively with this interstate business. Recently the governors of the states of New York, New Jersey, and Pennsylvania formed an agreement among themselves, under the compact clause of the Federal Constitution, subject to approval by Congress, to secure control over this new interstate power business. Complete regulating machinery is still lacking for properly handling these interstate operations. The Federal Power Commission and state commissions function to prevent extended abuses of holding companies of so-called superpower projects or otherwise; but it is the opinion of competent federal officials, as well as state executives, that the powers of the state regulatory bodies should be increased, while federal regulation should be strengthened to meet cases of clearly demonstrated deficiencies in existing machinery which lack local remedies.

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AN ECONOMIC HISTORY OF ROME

The Social and Economic History of the Roman Empire. By M. Rostovtzeff, Professor of Ancient History in Yale University. Oxford: at the Clarendon Press. 1926. 45*s*.

In applying social and economic inquiry to the treatment of Roman Imperial history from Augustus to Constantine, and in marking the interconnection of social and economic influences, Professor Rostovtzeff has undertaken a vast enterprise. That such an attempt was needed, is evident. That to bring the results up to date, by mobilising the huge mass of special articles and treatises now existing, is a work deserving all praise, no earnest student will deny. The 142 small-print pages of notes are in themselves a monument of industry. But the labour involved has not left the author in a hesitating frame of mind. Nothing is more remarkable than the firm assertions and decided opinions expressed in the book, and the confidence with which the writer looks forward to a change in accepted views as to the real causes of the decay of the Roman empire.

Whether this change will be immediate and complete may well be doubted. That there will be some change seems certain to me. Some critics will find too much inferred here from too little evidence on this or that point. Others will regard some inferences as hardly consistent with other details. But these are really objections to the workings of enthusiasm, and without enthusiasm the book would never have been written. The matter of prime importance for consideration is the soundness of that part of the thesis which deals with the nature, causes, and effects of the great disasters of the third century. To this the Professor himself called attention in advance (*Musée Belge*, 1923). And on the acceptance or rejection of his account of the "social revolution" of that period the value of this new book as a History must inevitably rest.

It seems to me that the candid and consistent recognition of the importance of agriculture as the leading industry of the empire, and of land as the ultimate investment of most accumulated capital, is beyond all doubt a necessary foundation for a satisfactory treatment of this problem. Rostovtzeff gives us the first solid and comprehensive statement of this position, and I

hold that he is quite right. So, too, in laying stress on the general tendency to formation of great land-units, estates of emperors, of municipalities, of individuals; and to a system of leasing large blocks to tenants-in-chief, who could and did sublet portions to subtenants. The efforts of the central power to regulate the relations of *conductores* to *coloni* on the imperial domains, so that the big man should not oppress the small, are significant. The same abuses that needed redress in the case of the Crown-lands can hardly have been wholly unknown on the *territoria* of cities or the *latifundia* of the private landlords. But of direct evidence in these cases we have hardly a trace. The private owner had no doubt much to make him cautious; any mismanagement such as to arouse imperial suspicion was liable to furnish a pretext for his ruin. For misdeeds of municipal authorities it was not so simple a matter to find a punishment that would not embarrass the central power. To weaken the local government, one of the most serviceable tax-collectors, was a doubtful policy at best: the remedy might be worse than the disease. Now, that some municipalities sinned in the management of their estates, and that the jobbery of local magnates had something to do with the abuses, we have the witness of Trajan and the younger Pliny. And the general silence on rustic affairs justifies a wonder that we have any direct evidence on this point at all. That Trajan thought it necessary to appoint resident controllers (*curatores*) in some cities, and that this system spread, is surely a strong indication that a serious evil had to be checked. And this is confirmed by legislation restricting the powers of local senates in granting leases of public land to their own members, a notable limitation referred to by Ulpian as a rule in force.

Here, I submit, we have reason for being disposed to accept the view of Rostovtzeff, that the main operative cause of the third-century troubles is to be sought in the growing hostility of the rustic populations to the urban. He insists on these points. First, the mass of countryfolk were natives of their several neighbourhoods. They were Roman subjects, at most very slightly Romanised, in many parts (*e.g.* the East) not Romanised at all. Infinitely various, they were essentially barbarian, foreign to the imperial Greco-Roman culture, which was confined to urban centres. In the government of the cities they had no voice, and their interests were disregarded. For instance, the burdens of military service were more and more devolved on them. In districts that happened to be seats of war

the peasants suffered cruelly; and the mere transit of an army on its way to the front was hardly less of a calamity. For it was the irregular requisitions of food and animals for transport, etc., that robbed them of present resources and extinguished hope. Secondly, the army, as being a peasant army, was likely to be sooner or later affected by the hatred of the oppressed peasantry for their urban rulers. A change in the attitude of the central power toward the bourgeoisie of the cities set going the movement which ended in the military anarchy. From the time of Severus the general policy of emperors was to court the army and to rest their power solely on its support. The old trust in the civilised element, the loyal municipalities, was no longer a cornerstone of the imperial system. True, the cities did not succumb without a struggle, but the opposition to Maximin was the last serious effort. That they in their turn suffered cruelly, as the rough soldiery became masters of the situation, is, I believe, true, though direct evidence of it is scanty. And, that Revolution is not too strong a term for the process of events between the death of Marcus and the accession of Diocletian, we may, I think, fairly admit. In the new model of Diocletian the internal freedom of self-governing cities was an idle word.

That social and economic influences in this pitiful third century did cross and combine to produce a ghastly scene of disorder and distress, in which the empire was menaced with utter ruin, I believe to be true. Perhaps it is too strong language to speak of a "class-war." But the hard and barbarous system of the next period was a natural consequence of the triumph of brute force in this; the imperial machine, simplified by its apparent complication, was the bureaucratic expression of an undissembled autocracy: the weary "Roman" world had no choice but to submit. That this result was unavoidable, Rostovtzeff makes clear, and does not blame barbarian invasions for disasters due primarily to the empire's internal maladies. But it seems to me that he might have gone a step further, and traced the germs of the disease back even to the Augustan age. Surely the *municipia* were never without defects of some kind. And the stream of local benefactions still flowing strong in the second century does not suffice to prove their inner soundness and well-being in the "Antonine" age. That the comfort and adornment of the actual cities was a marvellous show of urban civilisation, is beyond dispute. What the condition of the rustic population then was, whether they benefited at all by the lavish expenditure in town, and what they thought of it, are very different questions. And we

cannot safely answer these questions with the aid of the wholly one-sided evidence of inscriptions.

I am impelled to remark that the Professor's language at times might mislead a reader into thinking that he misunderstands the Roman municipal system. Thus on p. 131 he speaks of the Empire as "a curious mixture of a federation of self-governing cities, and of an almost absolute monarchy superimposed on this federation." Yet on p. 130 he most clearly recognises that the central government was "neither elected nor controlled by the constituent parts of the Empire." On p. 223, speaking of the establishment of *municipia* in Dalmatia and Spain, he even points out that the aim of this policy was to break up tribal life. I submit that the term "federation" is painfully inappropriate as connoting the facts, and that the municipal units were not what we can call "constituent parts" of the Empire. There is no real misunderstanding, but a safer terminology is sometimes important. On the economic side, the encouragement of commerce by the low scale of customs-duties is well insisted on (p. 159, etc.), but the existence of customs-frontiers within the Empire is a significant fact. Again, the social (indeed legal) distinction of *honestiores* and *humiliores* under the Empire is duly emphasised and correlated with the "class-war" phenomena of the third century. But it would be interesting to know whether in the author's opinion this crude differentiation may not have had a demoralising internal effect on the municipalities. The importance of class-distinctions comes out very fully in the discussion (p. 369) of the scope of Caracalla's edict of 212 A.D.

In short, great as is the value of social and economic considerations in treating of the Roman Empire, I hold that no less stress should be laid on the lack of vital co-operation in that aggregate of municipal units. It is quite fair to argue (p. 482) that a representative system was impossible, inconceivable in the conditions of the ancient world. But if ever there was a political fabric in need of effective co-operation to maintain itself in vigorous health, surely it was the Roman Empire. True cohesion was not attainable without a sympathetic harmonising and adjusting of local interests so as to promote the welfare of the people in their several communities and make them feel themselves living members of a great whole. Whatever tendency there was at first to a policy of this kind died out in the course of the second century. So at length we reach the system of Diocletian, who accepted the results of the third century. And we are truly told (p. 461) that the essence of his system was that

"the interests of the people were sacrificed to what seemed to be the interests of the state." Doubtless, he saw no other way out of the terrible impotence to which financial exhaustion and military anarchy had reduced the Empire: and the servile stagnation into which it permanently lapsed under him and his follower Constantine is strikingly portrayed by Rostovtzeff. "Terror and compulsion" were fixed as administrative methods.

The growth and decay of commerce and industry throughout the empire are treated with great wealth of detail. On this subject the Egyptian papyri are one of the most prominent authorities. Early in the book an instructive passage deals (pp. 89, 90) with the fiscal policy of the Julio-Claudian emperors, and the growth of state-control, and its consequences, is traced in due course down to the deadening scheme of hereditary occupations in the later age. No comment is needed. It is only in a quantitative estimate that some hesitation may be excusable. Regular statistics are not to be had (p. vii), and the numbers of the imperial population are only guessed at by modern experts, whose conclusions vary immensely. That the restoration of peace by Augustus was followed by a great development of economic prosperity is no doubt true, particularly in the Eastern Provinces (p. 90). Whether in the Augustan age Italy "remained the richest land of the Empire, and had as yet no rival," seems to me less certain, and the assertions of this (pp. 68, 74) are perhaps too strong. Nor am I yet convinced that in the first century there was such a change in agriculture that (p. 95) Italy "was gradually becoming a corn-land again." That inter-provincial commerce developed under the Empire, that commerce thus became decentralised, that in consequence Italian prosperity declined, the decline of Puteoli and the growth of Ostia (pp. 150 foll.), are important points well made out. So, too, is the rise of Aquileia as a port in connection with trade-routes to the North. But all the learning and ingenuity of Rostovtzeff cannot extract from the evidence anything capable of expression in figures and comparable with modern statistics.

The book is a great book, unrivalled as a survey of the Roman world. But looking at Italy by itself I feel some misgivings as to the adequacy of the picture in certain respects. That there was always a peasant population in Italy (p. 192), and that in the first and second centuries they more and more appear as tenants, not owners, of farms under great landlords, may be granted. But was this equally true of all parts of the country? And can it fairly be affirmed that Pliny expected his tenants to do most

of the farm work with their own hands? That he made use of slave-labour only as a last resource, is inferred from a misinterpretation of Pliny's words (Epist. iii, 19). And the equipment of a farm (*instrumentum*), by the landlord providing slaves as well as other things, appears as normal in jurists of the time. The elder Pliny, too, in claiming pre-eminence for Italy as the first country of the world (*N.H.* xxxvii, 201), includes the supply of slaves as one of her glories. It seems to me that the passage (pp. 191–3) needs some modification. There are not lacking indications that (*a*) the survival of free peasantry was at least mainly confined to hill districts not absorbed in the latifundial movement, and (*b*) the peace and security of life in the countryside was far from complete. Juvenal, Suetonius, the younger Pliny, and Seneca are hardly to be ignored. That Augustus had to take measures to stop kidnapping of freemen (*suppressio*) for service in slave-gangs, that a respectable traveller could disappear and leave no trace, that encroachments of the big men on the small could still be referred to as no negligible incidents of rural life, are significant hints. They need to be, if possible, explained away. I suggest that whatever prosperity Italian agriculture enjoyed in the first century was largely due to the skilled enterprise of freedmen on small holdings, and to the placing of slaves as *quasi coloni* on portions of the great estates the practical control of which was a grave economic problem. These two movements were beginning, and both conduced to efficiency.

Admiration for the book must not lead me to dissemble my conviction that the wealth of Italy should be estimated on a more modest scale. The pictures drawn by courtier-writers are untrustworthy, whether it is Horace chanting the blessed revival under Augustus or Pliny glorifying the boons of Trajan. Nor do sculptured scenes of dole-giving prove anything as to the success of the scheme of *alimenta*. That an increase of genuine Italian population resulted therefrom, seems not to be made out. The surest inference to be drawn from this well-meant design is that it was an attempt to check a decline so serious as to alarm the government. The few facts known about it do not prove it a successful remedy. It is a pity that we have such scanty information as to the internal condition of the Italian municipalities under the earlier Empire. There is no room to discuss this matter here, but I may say that the details collected in H. Nissen's *Italische Landeskunde*, and his general conclusions (Vol. II, pp. 44–130) seem to me sound and consistent with the later course of

events, more especially with Rostovtzeff's view of the "class-war" revolution of the third century. It is easy to over-estimate their industrial production, and that it was chiefly the output of slave labour I do not dispute. But slavery was a canker in more ways than one.

At this point let me recall the pertinent question put by Seeley (*Lectures and Essays*, pp. 44 foll.) so long ago as 1869, in discussing the causes of the failure of the Empire. "If in three centuries the barbaric world made a considerable advance in power, how was it that the Roman world did not make an immensely greater advance in the same time?" He argued (and it is not easy to refute him) that a barbaric society is commonly almost stationary, while a civilised society is indefinitely progressive. Now this means that civilisation is on the face of it an advantage: if events record a contrary result, there must have been something wrong with the civilisation in question. Seeley attempted to solve the problem by the "failure of population" theory; without success, I think. This is one of the solutions discussed and dismissed by Rostovtzeff in his brilliant twelfth chapter. But his vigorous criticism of other men's solutions do not lead him to any very clear conclusion of his own. He generously admits that each of the rejected theories has contributed much to the clearing of the ground, and "has helped us to perceive that the main phenomenon which underlies the process of decline is the gradual absorption of the educated classes by the masses and the consequent simplification of all the functions of political, social, economic, and intellectual life, which we call the barbarisation of the ancient world." He ends on a note of pessimism—"Is not every civilisation bound to decay as soon as it begins to penetrate the masses?" In this question it is a suffering Russian who speaks, but in America and in England there are those gloomily prone to agree with him. For the present I cannot follow him. The "main phenomenon" surely did not arise out of nothing. How did it come about? The search for causes cannot be arrested at a point arbitrarily chosen. We are left at a stage beyond Seeley and the rest. But future inquirers, aided by the labours of Rostovtzeff, have still work to do in the complete solution of the greatest of historical problems.

In reviewing a work of such immense detail many topics have to be omitted for lack of space. Of these I may name the constitution of the army and its relation to Roman citizenship; the position of retired veterans and their influence on the population; the frontier defences, the *canabae* as nuclei of towns, and the

prata legionum. So also the exhaustive effect of Trajan's forward policy, and appreciation of the work of Hadrian. Again, the instructive details recovered from Egypt and Pompeii, and the taxation-system of Diocletian. An important question, that of the sources and structure of the so-called *Historia Augusta*, is not neglected. The state of internal communications by land and sea might perhaps be reconsidered from the point of view offered by Nilsson (*Imperial Rome*, pp. 204–22. London, 1926).

The Oxford Press has spared no effort to produce the book in a form worthy of the author and of itself. There are 60 full-page plates, photographs of ancient remains of all sorts. Some of these are very effective and instructive illustrations of the text. Their interpretation may here and there be rather bold, and that experts sometimes disagree is clear from p. 308, No. 4. Whether the bust on p. 382 is an authentic portrait of Maximin, I do not know. The identification has the authority of Bernoulli and Hekler. But the very different head given by Nilsson as Maximin after R. Delbrück seems much more akin to the character of that emperor as represented in our tradition. And I have not yet seen a coin-portrait that would settle the difference one way or other. On p. 206 No. 4 is a bas-relief the description of which I cannot verify by the picture. I can find nothing to suggest the presence of a reaping-machine drawn by a team of oxen. And the only machine of the kind known to us (from Pliny and Palladius) seems to have been driven from behind by a single ox. These are very trivial details, only worthy of notice because of their occurrence in a work so learned and so vigorous as this.

W. E. Heitland

REVIEWS

The Economic Problem. By R. G. HAWTREY (Longmans, Green & Co., Ltd. Pp. 417. 10*s*. 6*d*.)

MR. HAWTREY'S book is in two main parts. The first gives a description of the economic system in terms of markets; the second and longer part is concerned with human nature, with criticism of the foundations of recognised economic teaching, and with speculation upon certain of the problems facing our civilisation. The description of economic processes is extraordinarily well done, but the chief interest of the book is to be found in the second part and, there, in Mr. Hawtrey's attempt to provide a philosophical basis for economics.

Mr. Hawtrey does not quite succeed in bringing the second part of his book into organic relationship with the earlier part. Nor does he, in spite of his acute criticism of many orthodox standpoints, carry conviction of a new and more defensible form of economic teaching. Holding that economics must include the consideration of ends, he essays to bring the teachings of other sciences to its aid, but with a certain hesitation as to method. He avows, in more than one place, his adoption of the philosophical instead of the abstract method, but in others he only suggests that the whole subject might be treated as a department of philosophy or writes of his "modest philosophising." This state of doubt is reflected in the somewhat indecisive character of the book taken as a whole: a general result is an inclination to think that little is to be gained by treating in one book abstract economics and philosophy of action in the concrete, unless the purpose be the clearing up of the respective spheres of economic science and philosophy, to which purpose Mr. Hawtrey is not limited.

His criticism of wealth or utility as the subject matter of economics carries Mr. Hawtrey into a definition of subject matter which appears to be much less satisfactory. "The economic problem is the problem of joint action by a community of men" (p. 7); this, or some variation upon the same theme, with an insistence upon the impossibility of separating economic and moral values, forms the basis of the exposition. But joint action, it may be suggested, is only a form of speech, all action being of necessity

individual action; the fact that action is limited by, and must be made with a view to, the institutions and relations of individuals which constitute society, does not affect the principle of economic activity. In another place Mr. Hawtrey stresses the point that the only ends are individual conscious experiences. Again, he says, p. 184, "But economics *cannot* be dissociated from ethics. Those who say that wealth or utility is the end of economic action are committing themselves to ethical propositions, which are open to challenge and need to be defended and justified." But in this Mr. Hawtrey himself is throwing out a challenge. The proposition to which he refers, as commonly made, is not an ethical proposition but a statement of observed fact: and the dissociation of economic action and moral action has a history in philosophy which is as old as Plato, and as new as the most eminent of living philosophers. If economic action is not action into which the idea of ethical obligation does not enter it is difficult to see where a foundation for a distinct study is to be found: Mr. Hawtrey criticises, rightly, the utilitarian endeavour to identify moral with economic action, but himself seems to fall into the error of making the economic identical with the moral. The substantial matter in the criticism of subject matter would appear to be reducible to a point often made but, perhaps, never sufficiently assimilated, that the economist's results, based upon abstractions which are unreal in the nature of things, in which every action is unique, can be true only in the sense that they are consistently reasoned. Utility is an appropriate term for the end of non-moral or economic action—or for such action in itself, since it is doubtful whether, for a philosophical economics, action can be separated into means and end. The attempt to lay hands on a measurable aggregate of economic welfare is quite another matter. This Mr. Hawtrey subjects to a convincing criticism. He might have made his criticism even stronger if he had freed himself somewhat from an obsession with "products," and recognised that the independence, to which he refers as an end in strikes, is only typical of a multitude of experiences, embodied in economic actions, which contribute to utility equally with his "products." But that wealth or welfare so, and in other ways, considered is an abstraction is not a reason against holding that in the individual economic action utility—or wealth or welfare without ethical significance—is aimed at.

Mr. Hawtrey deals, in fact, with much more than can be brought under the title economic. In spite of his disavowals

and, apparently, of his intentions, he is concerned with the construction of an ideal state. Given his definition of subject matter in economics it is difficult to see how he could have done otherwise. In the task, however, he attempts to apply the ordinary classifications of empirical economics without sufficient regard, on the one hand, for the fact that the subject matter of a philosophical economics is not limited like that of an empirical economics or, on the other, for the fact that he is going beyond the economic. His divisions into "economic actions," "economic motives," etc., do not fit the subject matter. He notes that a philosophical treatment requires the setting aside of the boundaries set by markets, but he does not follow this up to recognise that in life all actions are either economic or uneconomic according as they are directed well or ill; that the economic principle applies throughout whatever particular ecomonic motives may be said to operate in certain circumstances. On the other hand, the good life is a matter of taste and, to take one of Mr. Hawtrey's examples, it is so that the choice between equality and inequality will be made. It is no objection to the choice of equality to say with Mr. Hawtrey, p. 228, that "it is difficult to see how equality can be arrived at or even satisfactorily defined"; or, at least, Mr. Hawtrey is in a like difficulty with regard to any particular condition of the inequality for which, he suggests, there may be something to be said. Moreover, does the difficulty of definition in advance hinder choice otherwise than, say, when a poet chooses to make a poem? Mr. Hawtrey tends to leave the impression that, if he were to construct an ideal state, most people in it would be left merely as unquestioning, if enlightened, consumers. He contends, p. 189, that "taking welfare to comprise all those experiences which possess ethical value in themselves . . . we can confine ourselves to *finished* products or objects of consumption. The value of the intermediate products depends upon the value of the finished products for which they are the means." It is questionable whether means and ends are so separable; the extract, it is true, is from a chapter dealing with consumption, but a noticeable defect of the book is the failure fully to appreciate the quality, so to speak, not of product but of production. Even Mr. Hawtrey's emphasis upon the importance of "creative products" leaves this impression of a one-sided consideration; his problem will for many people require a solution in which the value attaching to each man's controlling his own destiny is more fully stated.

In his last chapter, a very uneconomic position in view of the

scope he has permitted himself in the interval, Mr. Hawtrey proceeds to refine the definition upon which he has been working. The definition, he sees, is too wide for the subject matter traditionally coming under "Political Economy"; there is joint-action in religion, sport, etc. This consideration, as has already been suggested, appears to be somewhat irrelevant, but, apart from that, the refinements are not very helpful. Mr. Hawtrey seems to lose his usual clarity when he says "we may distinguish between the *economic* problem of how to secure joint action and the *technical* problems of how to employ the joint action, once it has been secured, on the prescribed task." Explanations follow, but it is questionable whether they explain the distinction between the securing and the employing; it is questionable, indeed, whether there is a distinction. Taking one of Mr. Hawtrey's examples, the economic action would appear to be the choosing to make boots (with a given equipment in a particular state of technical knowledge, etc.); there may be a known technical difficulty which delays the actual start in boot production, but the practical activity involved in overcoming this technical problem is economic. "The economist does not have to learn how to make boots," Mr. Hawtrey sums up. But the professional economist, to whom this seems to refer, is concerned with the study of conscious practical activity in general, that is, with theory: he is not concerned with the practical problem of how to secure joint action in boot-making any more or any less than he is with the practical problem of how to make boots. If, as it seems, the previous reference is to the practical economist—Mr. Hawtrey, p. 305, says, "It is to them (those actually engaged in guiding the legislative and administrative machine), if to any, that the economic problem appears as a practical problem"—then the summing up is beside the point. For a philosophical economics every man must be an economist. (More might be said on the introduction into his later definition of the "*how* to secure," not contained in that quoted near the beginning of this review.)

It is doubtful whether there is *an* economic problem, but the second part of Mr. Hawtrey's book, like the first, deserves to be read very widely. Its discussion of particular questions is always of great value, and its claims in this respect extend to many different classes. Merely as instances of these claims attention may here be called to the estimate of the relative weights given in actual government to considerations of "power" and "welfare" respectively which men of affairs, concerned to bring "rational volitions" to bear upon those affairs, ought certainly

to read; and, for the student in particular, the corrective supplied to the tendency to take an exact economic science for more than it can be, a corrective which is administered much more effectively than in the usually somewhat formal disavowals of books on general economics.

ROBERT WILSON

The Economics of Private Enterprise. By J. H. JONES, M.A. (London: Pitman. 1926. Pp. 437. 7*s.* 6*d.*)

ECONOMIC textbooks follow each other in swift succession; they are now generally addressed to a section only of those likely to be interested in the content of Economics. The astute writer of Economic works no longer treats Economics as an indivisible whole for an indivisible public. He either selects a subject and presents it in a monograph as Professor Jones did in his book on *The Tinplate Industry*, or he selects his public and writes a general treatise calculated to appeal to it, as Professor Jones has done in *The Economics of Private Enterprise.* This book is pre-eminently suited for those who are interested in business: it is not designed for the consumption of members of W.E.A. classes, nor primarily for such University students as are attracted by the more abstract aspects of Economics. It is neither humanitarian nor mathematical. It will appeal to many who are left cold by other presentations of the same subject. This is much to be desired, since the necessity for introductions to Economics grows with the increase in the State's Economic activities and is especially pressing for those who are likely to be concerned with private enterprise.

The book then is introductory and, in the main, the introduction is for those intending to embark on a business career. This accounts for the order in which the subjects are presented and for the range of the book. The speculator is brought into the second chapter; "futures" and "spot" and "hedging" dealings are explained at an early stage of the book. Money, International Trade, Foreign Exchange, Unemployment, Trade Cycles have chapters devoted to them. Taxation is not dealt with save incidentally; Protection is avoided for a reason which hardly seems peculiar to it, namely that it "raises considerations which are not relevant in a book on Economic Science" (p. 399).

The area covered is certainly greater than that of most introductions to Economics, yet so clear are the author's explanations, so apt and so interesting his illustrations, and so vivid his descriptions, that the reader has no sense of being hurried. Herein

is a danger. Those who know nothing when they pick up the book may be tempted to think they know everything when they lay it down, or, more dangerous still, that they understand everything that has been presented to them. When, for instance, Professor Jones explains Rent and even Quasi-Rent in a chapter in which no mention is made of the law of diminishing returns in spite of a reference to the importance of the connection in an earlier part of the book, some may wish to remind him of the dictum that " a difficult explanation in Economics is one that it is hard to understand; a simple explanation is one that it is *impossible* to understand."

Given that the reader remembers that he is only being placed on bowing terms with matters with which intimacy is not readily won, he will be grateful to Professor Jones for the easy manner in which he has been brought so far. The chapter on the " Economic Order " (pp. 34—48), which deals largely with the State and Economic freedom, is an admirable piece of descriptive explanation. The second section of Book III, on Money and International Trade (pp. 263—345), will carry many beginners happily through the early stages of subjects which often present great difficulties. Professor Jones might perhaps have saved himself and them some trouble by omitting that part of his explanation of monetary theory which belongs to pre-war days, since the use of gold as currency adds a tiresome complication to an elementary study of money.

Professor Jones's explanations do not suffer from that devastating smoothness which makes the reader forget that anything has been explained. They are crisply uttered. Moreover, from time to time, in the midst of able elucidations of elementary problems, fresh ideas are brought in which furnish even the jaded reader of text-books with food for thought without obscuring the argument. Attention is also held by the illustrations. Some are culled from modern blue books; many bear the mark of first-hand individual knowledge. They are so modern and so closely connected with questions which are being considered to-day that the book may not be as interesting twenty years hence as it is now; but it is to be hoped that there will be successive editions in which the illustrations may be brought up to date.

It is unfortunate that the definitions do not reach the standard of the explanations. It is not for definition of Economic terms that any beginner should read this book, for here the author's gift of simplicity deserts him. Students who desire to understand the meaning of " Demand " should, if they agree with the first

sentence of the chapter on that subject, " it is one of the essential requirements of Science that elementary notions should be clearly defined," read no more of it. After an ingenious and unnecessarily elaborate discussion of a distinction between utility and satisfaction, Professor Jones writes that the law of demand states that " the demand for any commodity or service is greater than it would have been at a higher price and less than it would have been at a lower price " (p. 211), and adds that the truth of this statement is so obvious that it may be accepted as an axiom. It is not in the least obvious to those who see demand always as " demand at a price," and the demand for a commodity as a schedule giving the amounts that will be bought at different prices. It is true that on the next page we are told that " it is important to distinguish between variations in demand consequent on changes of price on the one hand, and, on the other, variations in demand due to changes in habit." But why are the first called variations in demand at all? No change in desire is indicated; it is supply that has changed, not demand. The supply curve strikes a different point on the demand curve. Professor Jones is, we fear, being unduly kind to those who prefer not to define their elementary terms clearly. His talk of " static " and " dynamic " laws makes things no plainer. In confusion will those be confounded who are allowed to dissociate demand from desire to purchase at a price.

Again, the chapter on Increasing and Diminishing Returns (pp. 129–48) leaves much to be desired. The law of increasing returns is presented as having four " static " meanings closely approximating to though not so clearly defined as those given by Professor Pigou in " Protective and Preferential Import Duties " (p. 17). The law of diminishing returns also is invested with four " static " meanings corresponding to those given to the law of increasing returns. Concurrently a " dynamic " law of increasing, and, more tentatively, a " dynamic " law of diminishing returns, are discussed. It is not quite a fair summary to say that by the dynamic law of increasing returns is meant the growth of discovery, and by the dynamic law of diminishing returns the growth of population, yet these are the ideas predominantly left in the mind. It seems a pity to impose on two terms, each of which is already laden with four meanings, two more which can be better described otherwise. No very clear conclusions can be obtained from this chapter, though it is implied that when the two laws are " dynamic " the law of increasing returns is likely to win.

The instances selected are the most outstanding ones of faulty definition, but there are others. The book is as weak in definition as it is strong in explanation, description and illustration. For the last three, all readers with industrial and business interests may be most cordially recommended to study Professor Jones's book, but they will get their definitions more easily and safely elsewhere.

It is perhaps not entirely frivolous to advise those who desire to read this book in comfort to furnish themselves with a book-rest. It is, for its size and content, of prodigious weight.

LYNDA GRIER

Essays in Economics. By EDWIN R. A. SELIGMAN, McVickar Professor of Political Economy in Columbia University. (New York: The Macmillan Company. 1925. Pp. ix + 394. 8vo. 17*s*. net.)

SIXTEEN years have passed since his admiring countrymen struck a medal to perpetuate the likeness of Professor Seligman and to commemorate his "twenty-five years of signal devotion to the common good as Scholar, Teacher, and Citizen." His natural force is not abated. He continues to pour out articles, reviews, essays, and addresses in the intervals of his new books and new editions, and combines the freshness of youth with the erudition of fifty years of unflagging study and the balanced judgment which bears the fruit of wisdom. From what he describes as his "minor contributions" he has selected fourteen studies to form the present volume. A companion volume will collect some of his *Studies in Public Finance.*

The fourteen essays now collected range from 1877 to 1925. They are highly welcome in this form to those who are fortunate enough to know them already, and doubly welcome to those who come to them for the first time. The first four are "contributions to the history of economic doctrine" especially in England and the United States. The essay on "Some Neglected British Economists," which originally appeared in the ECONOMIC JOURNAL for 1903, will permanently adorn this branch of inquiry, and puts to shame the neglectful British economists who leave unquarried the vast resources of the British Museum and the Goldsmiths' Library. Professor Seligman's library is one of the wonders of the world, as any one may see from the description of it which he has written for the article "Economic Libraries" in the *Dictionary of Political Economy.* What is still more

wonderful is his knowledge of the works which he has collected, and the industry with which he draws from this treasury things new and old for the delectation and enlightenment of his readers. Problems of economic theory and of economic policy and two lectures on Universities, their spirit and form, their rights and duties, complete the volume.

The reviewer can only signalise this volume to the student as one which requires his earnest attention. In all social questions we must, as Marshall says, supplement the use of the economic organon by unorganised common sense. It is fortunate that we have in the present day so many elder statesmen among economists who, like Seligman and Taussig, Gide, Nicholson, Foxwell, and Bonar, have looked out upon the world for many years from the economic watch-towers, and whose "common sense in an uncommon degree" has been matured by long experience and depth of thought. Such teachers are the mellow glory of the economic stage. We can only hope that Professor Seligman will round off his fifty "years of signal devotion to the common good," and that in spite of his eminence the best is yet to be.

HENRY HIGGS

Principles of Economics. By O. FRED BOUCKE, Professor of Economics at Pennsylvania State College. (New York: The Macmillan Company. 1925. In two volumes. Vol. I, pp. ix + 560. Vol. II, pp. vii + 520. 10*s.* 6*d.* each net.)

THE publishers of Professor Boucke's two volumes describe them as a text-book for university students. Probably this description has been deduced from the author's prefatory statement that "college students particularly need a thorough drill in principles if they are to derive the greatest possible advantage from courses preparing them for a career in business or in the professions." That those who accept Professor Boucke's volumes as a text-book will undergo a thorough drill there can be no doubt; and that, at the end of their course (unless they are constructed differently from the present reviewer) they will feel exhausted by their drill is beyond question. A text-book of two volumes comprising 1100 pages with "some unusual omissions" and little "said about government regulation of business, about private programs for reform, or about the origins of our existing legal and economic order" should be quite sufficient even for those maturer men to whom Professor Boucke makes his appeal.

The distinctive ground of this appeal is not very clear. To

present, in a large book on the principles of economics, an analysis of fundamental socio-economic relations rather than rules for attaining personal prosperity is hardly a new departure; nor is a combination of a long-time view of economic activities with a short-time one. Even to draw upon the thought of master minds in philosophy, natural science, and psychology, is not strikingly novel, though too much of it is apt to be of doubtful value in a book in which a concentration on the science of economics is strongly emphasised. Frankly, Professor Boucke's two volumes are disappointing. In a pretentious book of this character one might reasonably expect to find either some new contribution to knowledge or that already available set in a clearer light. In neither respect is the expectation realised. Notwithstanding the acknowledgment of help received from past and present economists on both sides of the Atlantic, one feels that the author is not altogether in sympathy with their writings but that, as yet, he is not prepared to strike out a line of his own.

This is not to say that Professor Boucke makes no departures from the customary methods of treating his subject or that his treatment is not suggestive. He divides his book into four parts entitled Production, Price, Distribution, and the Growth of Wealth. In connection with production, he enunciates three laws of productivity which, he declares, are valid for every field of human endeavour and are universal and eternal. The first is a law of proportionality which has to do with the different kinds of labour, materials, and motive power, and the ratios in which they should be employed so as to reduce the total costs for a given product to a minimum. The second is the law of size and is concerned with the concentration of the means and methods of production upon one area so that the net returns are a maximum. The third is a law of rhythm and relates to the distribution of successive periods of rest and work and to the speed with which work is performed, again to the same end as in the other two cases. The implication is, of course, that somewhere, in each direction, there is a point of maximum efficiency, a proposition which is not so new as might be thought on reading Professor Boucke's discussion of it. Would that he could have laid down the practical means for the attainment of this efficiency instead of having to inform us that the economist has no advice for business men in any field.

In those parts of his books in which Professor Boucke deals with price and distribution the most noticeable feature is his partial use of the marginal method and his reluctance to carry it to the expected conclusion. On the other hand, he seems to have

no satisfying conclusions of his own, with the consequence that the reader has the feeling of having been carried about in mid-air and left there. For a verification of this statement a reading of the chapter on Valuation may be recommended, where we appear to be left with the conclusion that price is determined by anything or nothing in particular.

After a toilsome reading of 1100 pages one is left wondering whether Professor Boucke would not have written a better text-book on the principles of economics for university students if his debt to the thought of the master minds in philosophy, natural science, and psychology had not been so great.

G. W. DANIELS

The Cost of Living. By N. B. DEARLE. (London: Allen and Co. 1926. Pp. 183. 3*s.* 6*d.*)

THE main contention of the introductory chapter of "The Cost of Living" may be summed up in its concluding paragraph, in which Mr. Dearle writes: "Hence there is an essential connection between cost of living and output. Wages, salaries, interest, etc., are all limited by the total National Dividend. For while it is possible to raise any or all "money" incomes, this will only mean increased real incomes, if there is more to divide. Without this, increased incomes will be balanced by a rise in the cost of living, through increased prices, and in a country like Britain, which depends so largely on the export trade, the losses are likely to exceed the gains, since increased prices will render our industries less capable of selling abroad, and so will eventually reduce the National Dividend."

The next chapter contains an interesting and valuable discussion of the cost of living itself. The writer deals with the different standards of living in different classes, and analyses the terms "Existence, Living, and Luxury."

"First, there are those primary wants necessary for the maintenance of actual physical health. Secondly, there are the requirements of full bodily and mental efficiency, including a modicum of comfort or luxury, and some facilities for mental culture. . . . Beyond this can be distinguished an ascending scale of wants, for culture, luxury, extravagance, display."

Again, in other words, the author lays down the same distinction between "what is necessary actually to maintain life, what is needed to provide, in the sense of the ancients, the good life, and what is required to enable Dives to "fare sumptuously every day."

He reminds us that "the needs of efficiency require unduly differing standards, and the phrase 'a position to keep up' is not the empty thing that is sometimes supposed. Nevertheless, the real justification for variety of standards and rewards must not be pushed too far. For the question remains whether any particular standard is excessive or deficient in relation to what is given in return or to the total national dividend. . . . Two aims must be borne in mind, to provide a reasonable life for all, through a standard of necessaries and comforts that shall not be one of mere existence, and to avoid such sudden, or even gradual, destruction of established standards as will be fruitful of distress. The problem, indeed, in only partly one of distribution, for it can also be handled by so maximising production as to make the largest possible supply of necessaries and comforts available for all."

Chapter III consists of a lengthy description of index numbers, and a discussion of the extent to which the Board of Trade figures accurately reflect the actual facts, especially with regard to the well-being of the workers. Mr. Dearle concludes that on the whole those figures are reliable, and he points out the disadvantages of frequent changes in the methods on which statistics are based. "The Index," he tells us, "has been criticised from so many directions as to constitute evidence of its substantial accuracy." He admits frankly the limitations of its functions, and discusses possible improvements, but claims for it the merit of "consistently comparing like with like," and "showing changes in the cost of keeping up a particular standard of living."

In Chapter IV, in the course of a discussion regarding changes in the prices of commodities, Mr. Dearle deals briefly with currency and credit factors, and analyses the relative advantages to the general public of slowly rising and slowly falling prices. . . . One might suggest that on p. 74 the clause dealing with the first favourable effect of a slow rise is somewhat ambiguously expressed.

His general conclusion, however, is irrefutable. "As between a gradual rise or fall in prices, strong arguments can be put forward on both sides. But apart from a rise in the value of money due to increased efficiency, lowered costs, or extended supplies, any fluctuation tends to lead to a feeling of insecurity." In short, all the arguments are in favour of stability as against either a rise or a fall that is caused by external factors.

The historical part of the book occupies 85 pp. and reviews the cost and the standard of living from 1350 to 1925. As one

reads the somewhat bewildering details, one longs for a few simple charts, which would have increased immensely the value of the section. The author gives us, however, some interesting conclusions. He asserts, though he cannot be said to have proved, that since 1914 earnings among the working classes have increased on the average by more than the cost of living. For this alleged fact he gives reasons which I enumerate briefly.

1. While wage-increases have varied, rising less than cost of living in unsheltered and more in sheltered trades, the average increase in all occupations has probably equalled or exceeded it.

2. The increase is on the whole greatest with the poorest workers, and in unskilled wages . . . while the sweated trades have benefited by the extension of Trade Boards.

3. Piece-rates have often been adjusted to yield the same wage under the eight-hour day as previously in the longer week, and the evidence of increasing output on piece-work suggests advances of earnings.

4. The shorter working day will in some cases, even during depression, give increased opportunities for overtime.

I will not quote the writer's fifth reason for the assumption that "earnings since 1914 have increased more than the cost of living," since it appears to refer to social measures of improvement, such as the extension of Unemployment Insurance, which cannot be said directly to increase earnings. As for clause No. 4, the argument so obviously cuts both ways that he was perhaps unwise in using it.

With clauses 2 and 3, however, he will find most of his readers in agreement.

This section concludes with a word as to middle class standards, which the author thinks are still below pre-war level, especially among the professional classes. "But they have undoubtedly improved as compared with the close of the war and the post-war boom."

Chapter VIII deals with some special problems, such as the effect of rates and taxes on the cost of living, various methods of taxation, profiteering, and the work of the Food Commission. An interesting and able section is devoted to the Co-operative Societies, their methods, the general effects of their widespread activities, and the case against taxation of co-operative dividends. The subject of the middle-man is also discussed, and the writer concludes that "the facts suggest some measure both of excessive numbers and unduly high charges in distribution."

In his final brief chapter he strikes an essential note which to-day cannot be too constantly emphasised. He points out that

there are hopes of some immediate reductions in cost of living, which as the years pass may fall nearer to the pre-war level. But the extent of the fall will depend upon the national output, which at present is kept down by waste and inefficiency, and distrust between class and class. " Such defects, indeed, are not new, and past improvements were achieved in spite of them. But their future removal can pave the way for great permanent lowering of costs and raising of standards. . . . With more produced there will be more to divide, and in peace and co-operation lies the road to that maximum production which, given a fair distribution, will provide the best conditions for all."

In view of the keen discussion on wages now taking place in the industrial world, and the comparisons so often drawn between purchasing power to-day and in pre-war days, this book is particularly timely. The author has brought together information from a number of sources, and presented it in a form which will be useful to social students, as well as to all those engaged in industry who appreciate the importance of complete and accurate data as a factor in wage negotiations.

B. SEEBOHM ROWNTREE

The Rise of Modern Industry. By J. L. HAMMOND and BARBARA HAMMOND. (Methuen. 1925. Pp. xii + 280. 10*s.* 6*d.*)

WRITTEN for " the general reader and not for the specialist," Mr. and Mrs. Hammond's latest book—which should have been noticed here earlier—is rather a series of essays than a narrative. " It is an attempt to put the Industrial Revolution in its place in history." It has three Parts. There is a Part on *Commerce before the Industrial Revolution*, a Part on *The English Industrial Revolution* and a Part on *The Social Consequences.* The best essay in the first Part is number four—*The New Prestige of Commerce.* The two least satisfying in the second Part are numbers two and three—*The Destruction of the Peasant Village* and *The Destruction of Custom in Industry*—not because they are necessarily slight, but because only bits of the subject-matter of either can safely be grouped under the title of Part Two, unless the Industrial Revolution is defined so as to cover every change which made way for the modern world, which is not the definition suggested elsewhere. Later in the book occurs the text, " in the eighteenth century custom was the shield of the poor " (p. 242). More than seventeen theses might be defended against this text, but it would be pedantic to propound them.[1]

[1] Other texts with their suggestion of defensible counter-theses might easily be found—as in all essays.

It is pleasant to read about *The Revolution in Pottery* among the necessarily rather familiar accounts of transport, iron and cotton in Part Two. In a delightful chapter on the steam engine the treatment suddenly becomes intimate: James Watt's headaches and Matthew Boulton's tottering down to business in old age. With Part Three the wide sweep of the earlier chapters of the book is resumed. The second and third essays—*The Curse of Midas* and *A World in Disorder*—are excellently hit off in their titles. They are full of challenging assumptions and propositions, full too of that deep sympathy for the disinherited and that rather cavalier handling of figures which one expects from Mr. and Mrs. Hammond. The first chapter of the Part is the most "original," an argument that the slave trade had hardened British hearts and led educated British heads to apply to a new industrial proletariat conceptions formerly applied to black slaves. The last chapter of the book deals with *The Beginnings of a New Society*. England's chief contributions "to the task of creating a society out of this new chaos" (p. 255) were Factory Law, the Civil Service and Trade Unions. To some of us "unconscious" forces at work in the "chaos" itself seem at least as important as acts of will in the governing human spirits that brooded over it, and certain other creations of will more really anti-chaotic than the Trade Unions, a *Kampfmittel* whose importance for the nineteenth century has been exaggerated, whose anti-chaotic working for the twentieth has been disputed. But there will always be different estimates of the relative importance of the hidden and the official hands.

J. H. CLAPHAM

The Origin and Early History of Insurance. By C. F. TRENERRY. (London: P. S. King. 1926. Pp. 330. 15*s*.)

THE essential feature of Insurance as we now know it is the sharing of the loss which an individual may suffer through some unforeseen event by a large number of other individuals exposed in various degrees to the same risk. This distribution of loss is effected through the machinery of the great Insurance Corporations.

This plan of spreading risks is, however, a comparatively modern development. The earliest forms of Insurance that have so far been traced take the form of guarantees by individuals, and this form still survives to-day at Lloyd's, where the individual Underwriter guarantees the risks which he underwrites.

The form of Insurance of which there is the most definite evidence in classical times is that now known as Bottomry. This in its simplest form is a loan made by A to B on the security of B's ship, on the condition that if the voyage is completed successfully B shall repay the loan with a premium at a rate stipulated for in the contract, but if the ship be lost, A shall forfeit the loan and the premium. The premium charged by A has therefore to be sufficient not merely to cover the estimated risk of loss, but also to provide interest at the current rate on the money advanced.

The late Mr. Frederick Hendriks (Actuary to the Globe Insurance Company), who was a scholar and a man of wide reading, made a critical investigation into the history of this interesting Contract of Bottomry and other early forms of Insurance. The results of his researches were published under the title "Contributions to the History of Insurance," in 1852, in the second volume of the *Journal of the Institute of Actuaries.* These articles by Mr. Hendriks provided the late Dr. Trenerry with the basis and framework for a thesis which he submitted to the University of London, and which has now been published as No. 87 in the series of Monographs by Writers connected with the London School of Economics and Political Science. It is only fair to the author to add that he intended to re-cast this work for publication, but was prevented from doing this by his death in 1911. Dr. Trenerry is therefore not responsible for the publication of his thesis in the form in which it has been issued to the public. It cannot be doubted that he would have cut out at least one-third and possibly one-half of the matter, so much of which is merely repetition. The Editors somewhat lamely plead their want of technical knowledge as a reason for not undertaking this necessary duty.

Dr. Trenerry, in addition to covering most of the ground previously investigated by Mr. Hendriks, has followed up every clue suggested by the latter, and has made laborious researches in other directions. The Bibliography of *some* of the authorities consulted runs to some 350 works. Unfortunately, the quality of Dr. Trenerry's work is by no means comparable to the quantity of it, and large sections of the book are made up of ill-digested quotations and wild conjectures. There is far too much "History in the Conjunctive Mood."

It is indeed difficult to take some of Dr. Trenerry's speculations seriously. In a chapter headed "Allusions to Longevity, Mortality, etc. by Early Writers" (p. 143), Dr. Trenerry quotes

the well-known words of Psalm XC, "The days of our years are threescore years and ten," etc. He points out that according to modern mortality tables, after infancy more people die at or about age seventy than at any other age. He then makes the following startling claim. "It will be admitted that the author of this psalm must have based his statement either on the careful observation of a not inconsiderable mortality experience, or on the observations of others." Possibly he had in mind that King David made his famous census, for which he received such severe but vicarious punishment, in order to discover the law of mortality!

A lengthy section of this work, running to 218 pages, is devoted to the question "Whether Life Assurance was known to the Ancients." After giving some account of the Funeral Societies (mostly of religious origin) which made provision for the burial of their members with appropriate religious rites, Dr. Trenerry sets himself the task of proving that ordinary Life Assurance as we now know it must have been practised by the Romans during the Empire. His difficulty is to find evidence. After pointing out how extremely unlikely it is that people enjoying such a high degree of civilisation could have managed to do without Life Assurance, he eventually rests his case, so far as any definite evidence is concerned, on *Responsa* (*i.e.* opinions on law) attributed to Ulpian. Among the opinions which the author quotes are the following:

> A man could stipulate for "money to be paid to my daughter after my death."
> A man could stipulate for "money to be paid to me after the death of my daughter."

By the authorities these opinions have been interpreted to mean that under Roman law it was legal for a father to make provision for a daughter in the form of a legacy payable at his death, and also it was legal to provide for the return of a dowry to the father on the death of his daughter. This rather prosaic interpretation does not satisfy Dr. Trenerry. And though he had apparently no claims to be regarded as an authority on Roman law, he assumes that the opinions quoted must be regarded as evidence "that the Romans were cognisant of and practised a non-mutual system of Life Assurance."

One further example should be sufficient to enable the reader to judge of the quality of this work. Dr. Trenerry, following up a hint given by Mr. Hendriks in the articles referred to above,

attempts to trace the Contract of Bottomry among the Hindus by references to the ancient Sanskrit Code (the Institutes of Menu). He finds a translation by Sir William Jones (to which Mr. Hendriks refers) which certainly supports the view that a Contract of Bottomry in a simple form was in existence at that time (? 200 B.C.). Unfortunately for Dr. Trenerry the later translators, whom he admits are more reliable Sanskrit scholars than Sir William Jones, take a different view. The case for the existence of Bottomry in these times depends on whether the word "kakravriddhi" is correctly translated "wheel carriage" or "compound interest." Dr. Trenerry, admittedly with no knowledge of Sanskrit, does not hesitate to submit a long argument for rejecting the views of the latest Sanskrit scholars on a point entirely one of Sanskrit scholarship.

C. R. V. Coutts

Mémoires et Documents pour servir à l'histoire du commerce et de l'industrie en France, publiés sous la direction de Julien Hayem. IXme Série. Containing *La Commerce Maritime de la Bretagne au XVIIIe siècle*, par Henri Sée; and *Quelques Professions Connues, Inconnues et Méconnues*, par Julien Hayem. (Paris: Hachette. 1925. Pp. vii + 344.)

This Series of the *Mémoires et Documents* for French commercial and industrial history is made up of two works of a totally different character. The first occupies more than three-quarters of the volume; and consists chiefly of a very thorough study of the trade of St. Malo in the eighteenth century, as indicated by the account books and business letters of the house of Magon, one of the principal shipowning firms of the port. Each of the main branches and directions of trade is separately and systematically considered, for (1) the first half of the century, (2) the period 1750 to the end of the Seven Years' War, (3) from that date to the Revolution, and (4) the revolutionary period 1790–92. The house ended dramatically with the condemnation of the two brothers Magon, the heads of the firm, men over eighty years of age, and ten other members of their family, by the revolutionary tribunal, and their prompt execution. Their crime was that of having acted as bankers to the *Émigrés*.

St. Malo's trade gradually decayed during the eighteenth century, because it had no readily accessible *Hinterland* from which it could draw, and which it could supply. The province of Brittany had no mineral wealth; its agriculture was backward.

Its one manufacture was the linen industry, carried on upon "the domestic system." And this furnished throughout the principal article which the Magon firm dealt in or carried; more important even than the cod-fisheries or the slave trade, which were also leading St. Malo interests.

The Magon shipping business was chiefly with the Spanish and French colonies. The Spanish government, during the greater part of the century, entirely controlled the trade with its colonies; and no goods were allowed to reach them except on one or other of the "convoys": the "fleet," which started from Cadiz at the beginning of summer for Vera Cruz, and the "gallions," which left Cadiz at the beginning of winter for the northern colonies of S. America. Accordingly, what the house of Magon did was to send their cargoes on their own ships to Cadiz, consigned to their nephews who resided there. At Cadiz the goods were either sold outright, or put on board the Spanish fleet under the name of a Spanish agent.

The changes in the Spanish policy during the later part of the century, and the ups and downs of other branches of the Magon business would furnish material for an interesting article. It will suffice here to say that M. Sée has performed his task, as it would seem, with care and judgment. He does not overburden the reader with detailed accounts, but gives him the general outcome of the century's transactions.

It is perhaps of some interest to note that M. Sée's dates for crises in St. Malo trade—and apparently in French trade in general—do not fit in at all with the dates very tentatively suggested for England by Jevons. Jevons's dates (*Investigations*, p. 230) were 1721, 1731–2, (1742 ?), (1752 ?), 1763. M. Sée's crisis years (pp. 53, 54, 90, 107) are 1724–6, 1738–9, 1754–5, 1770.

The other *Mémoire* in the volume is of a kind which will interest and perhaps surprise all who have to do with the imposition and administration of taxes. A French law of July 31, 1917, abolished the old business tax known as *Patente*, and substituted an income tax. Taxpayers were apparently given the option of being assessed either on their own returns as to profits, or on their returns of turnover (*chiffre d'affaires realisé*), multiplied by a coefficient officially determined. M. Hayem was called in, apparently, as an expert, to study a certain class (Group XVI), of businesses—a most miscellaneous congeries—with a view to recommending the appropriate coefficient. He tells us that the coefficients he proposed were almost all accepted by the ministry, and on being officially announced were acquiesced in without

a murmur. The English reader, accustomed to the reports of Committees and Experts generally, will expect coldly judicious and altogether unemotional paragraphs, with a few recent dates and such statistics as may be procurable. M. Hayem's little essays on Department Stores, on Music Halls, on Cinemas, on Rag and Bone Shops, on Naturalists, and a score of occupations mostly out of the way, glow with rhetoric and usually end with eulogy. And though they conclude with a recommendation—usually, indeed, permitting the assessment officials a wide range of percentage for each occupation, they permit only the most momentary glimpse of a principle. For instance, the article on the *Grands Magasins* ends by telling us that the author has considered

(1) The nature of the business in different localities.

(2) Selling expenses in the provinces, the colonies and foreign countries.

(3) For this I must really quote the French : " les dépenses réalisées pour conquérir une clientèle élégante et de haut gout, et pour doter les locaux du confort et du luxe appropriés à ce genre d'acheteurs et surtout d'acheteuses."

(4) The real or apparent sacrifices at the annual " sales."

(5) The cost of a suitable personnel.

(6) The cost of an elaborate control of accounts.

(7) The necessity of being ready to meet competition at any moment.

And then, when we are hoping for some quantitative measurements of these several elements in the problem, we are brought up short by this magistral conclusion : " In virtue of these considerations we think that it will be fitting to apply the minimum coefficient of 6% and the maximum coefficient of 13%." I must avow I like this 13% : it seems so much more exact than 10% or 15%! And I doubt not substantial justice is done : it may even be one of the things they do better in France. But I think some of us this side of the Channel would like to know just how that 13% was reached.

WM. ASHLEY

Population Problems in the United States and Canada. Edited by LOUIS I. DUBLIN. (Boston and New York: Houghton Mifflin Co. 1926. $4.)

Population Problems of the Age of Malthus. By G. TALBOT GRIFFITH, B.A., Cambridge. (Cambridge University Press. 1926. 12*s.* 6*d.*)

Over-Population, Theory and Statistics. By P. SARGANT FLORENCE. (London: Kegan Paul. 1926. 2*s.* 6*d.*)

IN his opening paragraphs Mr. Griffith (let us hope) makes too much of Sir Ernest Clarke's indictment of the earliest inquirers into English population, that they had no training for their work in the professions they followed, Gregory King being a map-drawer, Houghton an apothecary, Richard Price a Nonconformist preacher, Howlett an Anglican, Arthur Young a mere pamphleteer (*Statistical Journal*, February 1913, pp. 300, 301). Using Professor Stanley Jevons we might draw up a list for the defence (*Principles*, p. 101), pointing out that Arkwright was only a barber and Worcester only a lord, and yet the result of their experiments remains with us.

There is undoubtedly a difference between a book, however faithfully compiled, by a man whose subject it is not, and a book by a man of equal faithfulness whose subject it is. This seems to be the amount of truth in the implied reasoning of the indictment, which would otherwise leave the reviewer himself without a *locus standi*. As it is, the reviewer, dealing with three books all involving special studies over wide fields, can only with modesty point the way to other men's knowledge.

In two of the books before us the authors come single spies, in the American they come in battalions. In 1924 the American Statistical Association devoted an entire annual meeting to the problems of population; "this book is an outgrowth of that symposium" (Preface, p. i). It is not a Platonic symposium where the contributions follow on and from each other, as stages in one long argument. The nineteen essays are made separately and put together in groups by the Editor, Mr. Dublin, who in a useful Preface and opening lecture leads the way with a statistical survey of the subject. He tells us briefly and clearly the main figures and the sources of them. He states the special aspects to be studied by his groups. "The unparalleled growth in numbers, the intermixture of races, the rapid depletion of natural resources, the declining fertility in the cities, the urban migration, and the more recent curtailment of immigration, all make America

a remarkable laboratory for the study of population" (Preface, p. vi). America includes Canada; and Mr. R. H. Coats, Dominion Statistician, speaking for Canada (pp. 176 *seq.*), gives a masterly sketch bringing out the contrasts between his country and the United States. He shows at the same time how the two countries are always helping and sometimes hindering each other. The other Canadian contributor, Professor MacIver of Toronto, takes common ground, " the trend of population with respect to a future equilibrium" (pp. 287 *seq.*). Old England has much aided this branch of the inquiry by the Report on the Fertility of Marriage (1911 Census, Vol. XIII), which gives the figures for eight "economic classes" according to occupation, from those we might call the upper ten of industry (capitalists, managers and scientific helpers), in Class I, to the miners and the agricultural labourers in Classes VII and VIII (pp. 288 *seq.*). It is admitted throughout the volume that no country has matched our own in this particular service to statistics (*e.g.* p. 253 in U.S. book; see also Mr. Florence, pp. 34, 36).

Professor Reuter of Iowa writes on the Growth of Population in the United States (pp. 19–32). He shows that the growth proceeded at the Malthusian rate, of a doubling in twenty-five years, till 1860 (p. 22); then came the diminished rate, till in 1920 it was only 14·9 per cent. for the preceding decade in place of 35·6 per cent. for the decade preceding that (p. 23). The free land had gone by 1880. The intermixture of races went on, but with the negroes hardly counting in it. The negro element declined from a fourth of the whole population to about a tenth, where with little variation it still remains (pp. 26, 27; cf. p. 25). There is migration of negroes but no immigration (p. 28). By 1890 the urban life had begun to encroach on the rural; the cost of living had begun to rise and (what is surprising perhaps to some of us) the standard of living to fall (p. 24; cf. p. 137). As to the decline of the birth-rate, there were signs of it in New England in the 'sixties (p. 33). The difference between urban and rural birth-rates had been early remarked (pp. 34, 38). Prof. Warren Thompson, however, writing on the Natural Increase of Population (pp. 33 *seq.*), thinks he can show that only in the cities does the native stock tend to die out (p. 37). The existence of restriction is admitted throughout the book; but there is no agreement concerning the permanent effects of it. There is occasional dejection (pp. 13, 78, 272) and not a little optimism (pp. 73, 93, 109, 220).

The time has not come for unanimous conclusions, in face of

such a complication of causes. The writers in this volume are far from absolute agreement about the future of agriculture and mining (Part III, pp. 63–138), the Quota of Immigration (pp. 141–209), the Optimum Size of Population (Professor A. B. Wolfe of Ohio, pp. 63–76), the Germ Plasm (Mr. Goldenweiser, p. 200). Professor Wolfe asserts that "one can read the Essay from cover to cover without encountering a passage which indicates that Malthus ever thought that women have anything to do with population" (p. 75). So says also Professor Douglas of Chicago (p. 284). But Mr. Florence quotes a passage which was certainly within the covers, viz. from Book I, Chap. IV, in the later editions (Florence, pp. 26, 27). There are many others, *e.g.*, Chap. III, p. 21 (of 2nd ed.), Chap. II of Book IV, p. 498; but that chapter (IV) on the American Indians has a reference to women on almost every page, and includes the well-known saying of Dr. Robertson: "Whether man has been improved by the progress of arts and civilisation is a question which in the wantonness of disputation has been agitated among philosophers. That women are indebted to the refinement of polished manners for a happy change in their state is a point which can admit of no doubt" (2nd ed., p. 27). Remarks follow on the effect of harsh treatment on the bearing and rearing of children. To abstract from sex when dealing with population would indeed have been an impossible feat for much cleverer writers than Malthus.

Another error on which Mr. Florence puts his foot is the idea that the first Essay of Malthus is authoritative (see pp. 62, 63, in relation to Mr. Udny Yule). Mr. Florence sums up substantially in favour of the mature Malthus. "Modern theories of population still rest upon Malthus's propositions; and Malthus's methods of investigation still appear the most likely to bear fruit. *Malthus's opening propositions point to the tendency* of population to respond to and outrun any increase in the means of subsistence, and there is no sufficient reason to suppose that this tendency is not manifest in existing unemployment" (p. 64). There is an interesting paradox in the chapter on Birth Control. "Economic *reasoning is to the effect that the less the means* of subsistence the wider the use of preventive checks; the statistical evidence is that the more a man can afford to have children the less the birth-rate. Contradiction might be escaped by supposing the *statistical* evidence to apply *between* social grades, and the economic argument to apply to the richer and poorer members *within* one social grade aiming at the same standard of living" (p. 33 and note). The solution seems probable, in view of the

theory of "non-competing groups"; and the said theory in this way complicates the new theory of the Optimum; for every group its own Optimum. Mr. Florence (if a reviewer may brave the *caveat* of his own first paragraph) has put a great deal that is good into his dainty little volume; it is a bright general sketch well abreast of the times and worthy of the author's reputation in other fields of inquiry. The illustrative tables are ingenious (p. 2, and especially p. 19).

The second of our volumes may be called a special historical study; it is largely meant to secure accurate figures for the population of the eighteenth century, to ascertain and explain the variations of increase, in the light of the most probable rates of birth, marriage and death at various stages of the century. There was no census in England till 1801. Professor Gonner, in a paper read on January 21, 1913[1] (*Statistical Journal*, February 1913, pp. 261–96), discussed "The Population of England in the Eighteenth Century," and Mr. Griffiths takes this paper as the basis of his inquiry. Miss George's article on the population of London in this JOURNAL (September 1922) has also been of service. But our author uses his own eyes well, and the original authorities small and great have been ransacked with admirable patience. They are mainly the parochial records of baptisms, burials and marriages, eked out with the returns to hearth tax and other imposts. All are fallible in comparison with a census, even if they were complete, which they are not. Accordingly, the population of the eighteenth century is a happy hunting-ground for conjecture. Richard Price contended for a decrease in population, relying largely on the returns of assessed houses, supporting his calculations by the returns of excise and enclosures and the London Bills of Mortality (pp. 2, 3). His opponents, Howlett and Wales, were more successful in showing his errors than in providing the right figures. The nearest approach to probability was made by John Rickman, who had supervised the first four censuses with devotion and knowledge and a Goschen-like passion for statistics. In his estimates of the population of the eighteenth century, Rickman works back from the census, taking the excess (for example) of baptisms over burials. So Professor Edgeworth writes: "The statistics of the present were not the only object of the first census. It was attempted to reason backward to the numbers of the population in the preceding century by means of entries in the parish registers"

[1] Professor Edgeworth in the Chair. Mr. Griffith's printer gives the date wrongly on p. 1 as 1923, but rightly on p. 9 as 1913.

(art. "Census" in Palgrave's *Dictionary*). It is agreed that the entries of marriages were fairly accurate, especially after Lord Hardwicke's Act of 1754 forbidding all marriages except by banns or licence. Unless the relation of baptisms to births or even burials to deaths could be taken as constant, we have no sure basis for an estimate; and yet all the early calculators, even Rickman, have been drawn at one time or other into this assumption of constancy. In the case of the hearth, window and house taxes there was need of an assumed number, the number of the occupiers of the houses or cottages; there was even uncertainty as to the number of houses and cottages themselves. Rickman's first estimate was founded on the baptisms alone; his second relied on a return procured from the clergy, of baptisms, marriages and burials (Griffith, p. 8). The difficulty of inquiry might have seemed much greater with Ireland, but it seems agreed that the Irish increase even at the early period was faster than the English (Chap. III). Scotland is considered mainly in connection with Poor Relief and Irish immigration; no use is made of Webster's *Survey of Scotch Population in* 1755. Malthus thought Scotland "still over-peopled, but not so much as it was a century or half a century ago, when it contained fewer inhabitants" (2nd ed., p. 334, and later edd. unchanged).

Mr. Griffith's estimate for the English increase (p. 18) may be described as Rickman's two estimates amended in the light of later statistical criticism, including Gonner's and his own. The result is an increase from 5,835,279 in 1700 to 9,168,000 in 1801, the decade ending in 1730 alone showing a decrease (in the gin-drinking period; see p. 17 and Chap. IX).

Malthus made a calculation (not in his 3rd ed., as in the text, p. 20, but his 5th, 1817, Vol. II, p. 95): "from the excess of the births above the deaths, after allowance made for the omissions in the registers and the deaths abroad." His figures are very little higher than Mr. Griffith's or Rickman's, and our author need hardly have suggested bias.

The book centres in Malthus, and the chapter (IV) on that economist is written with great care, candour and judgment. Malthus escapes all the vulgar criticisms of him, and suffers only one that he might himself have accepted, that he did not fully appreciate the effect of a lowered death-rate as a factor of increase, attaching almost exclusive importance to the birth-rate. Mr. Griffith brings out this point exceedingly well.

Though the other chapters are illustrations of the main subject, they are some of them very telling, *e.g.* the passages on

emigration from Ireland to England (p. 67 *seq.*), on the conditions of health in the rural and urban districts (Chaps. VII, VIII), effects of the Poor Laws and apprenticeship on marriages (V, 112 and VI), alcohol in the eighteenth and in the nineteenth centuries (IX), and not least the improvement of medical science (Chap. X). Even the most self-satisfied reviewer, reviewing it at his peril, must confess obligations to such a book.

J. BONAR

Eugenics. By PROF. A. M. CARR-SAUNDERS. (London : Home University Library, Williams & Norgate. 1926. Pp. 256.)

THIS little book on eugenics will maintain the high standard of the Home University Library for clarity and good judgment. Prof. Carr-Saunders draws a useful distinction between the science of eugenics, " the study of the part played by inheritance in human affairs," and applied eugenics designating the application of the knowledge so gained. Save for the tenth chapter, on the control of racial change, the book is devoted to eugenics regarded as a pure science; even this last chapter is, however, rightly given principally to considerations which should properly be termed theoretical. The author does not tell us what defects should warrant the prevention of parenthood, but rather on what principles such defects should be selected; moreover, he discusses such questions as the danger (shown to be imaginary) of losing highly gifted individuals by the elimination of defective stocks, and the rate at which a systematic elimination of specific defects will decrease their incidence. Most important is his advocacy of census of mental and physical quality, which together with much improved information as to the effective rates of reproduction in different classes, would show clearly whether there is, as appears to some, an enormous and eminent danger of racial deterioration, or whether there are compensating actions which in our present state of ignorance escape detection.

The general arrangement of the book is singularly simple and well planned. Following an introductory chapter in which the distinction between the pure science and the applied art of eugenics is clearly indicated, come two chapters on heredity, the first on simple mendelian theory, and the second, in which biometrical conceptions are introduced, on inheritance in man. These are followed by thoughtful chapters on " environment and inheritance " and on " heredity and achievement " respectively. These first five chapters are all in the nature of a preparation for

the five important chapters that follow; namely, two chapters on the distribution of inherited qualities, and two on racial changes, together with the final chapter already discussed. It will be noticed that the nature and extent of class differences in heritable characters, and in fertility, occupy the place of honour in Prof. Carr-Saunders's treatment, and this is in accordance with the increasing importance, which is being attached to these two phenomena, as accurate observations are gradually accumulated.

It is, of course, impossible that one should agree with every statement in a very concise treatment of a subject of this magnitude. Occasionally, perhaps, the author forgets that a large proportion of his readers will not be familiar with other work, and will therefore lay too much weight on the illustrative material given. For example, Mr. Jastrezebski's figures quoted on p. 174 do not supply any sufficient warrant for believing that the birth-rate in London became less differential between 1911 and 1921, and no statement in the text literally states so much, yet many must have obtained from these figures a quite unwarranted impression of the stability of professional class fertility.

R. A. FISHER

Children's Courts. By W. CLARKE HALL. (George Allen & Unwin, Ltd. Pp. 287.)

FROM official reports on the work of special courts for juvenile offenders we may procure information as to methods adopted for correcting and reforming child delinquents and (for what they are worth) statistics of the results. In his extraordinarily interesting and human book on "Children's Courts," Mr. Clarke Hall adds to information of this kind the results of his long practical experience as President of the Shoreditch Juvenile Court. He has many recommendations to make for both legislative and administrative reforms, and also suggestions for the development of philanthropic effort. Presumably some of his recommendations will be found in the report of the Home Office Committee on the treatment of young offenders, and put into practice in due course. Others he admits are contentious and at present beyond the sphere of practical politics. Perhaps this refers especially to his proposal to extend the jurisdiction of children's courts to cover practically all criminal cases affecting children either as victims or offenders, and also all marital and family disputes involving the interests of the children. The book touches on all aspects of child delinquency—the psychology

and practical difficulties of the children and their parents, the methods and principles by which children's courts should be governed, the merits of different ways of dealing with young offenders. It would make a useful introduction to a more profound study of child delinquency, besides serving admirably as a handbook for all those engaged in practical work in that sphere. Brief accounts of the practice of children's courts in other countries reveal fundamental differences in the manner of approach to the problem. At the one extreme we have France where the children are treated as delinquents "who must be proceeded against with all the formalities and majesty of the criminal law." At the other extreme, in the United States, the child is not regarded as an offender against the law; the object of the courts is "not punishment but correction of conditions, care and protection of the child, and prevention of a recurrence."

S. SANGER

Money and the Money Market in India. By P. A. WADIA and G. N. JOSHI. (Macmillan. Pp. xii + 440. Price 21*s.*)

Indian Currency and Exchange. By H. L. CHABLANI. (Humphrey Milford. Pp. vii + 184. Price 7*s.* 6*d.*)

OF these two books that of Professors Wadia and Joshi is the more ambitious, as it aims at a general discussion of money and monetary theories in addition to discussing the Indian currency and money market. The first eighteen chapters are devoted to general theory and the remainder to Indian conditions. Presumably it is meant for students, but one suspects that the authors have higher ambitions. As a text-book there is much that can be criticised. The chapters dealing with theory are very uneven, some being very elementary while others involve discussions and criticisms which could only be followed by advanced students who have read fairly widely. The chapters on banking are quite inadequate and in places inaccurate. Thus the description of the English system would lead a student reader to think almost solely in terms of the Bank of England. The great joint stock banks are only mentioned incidentally and "Lombard Street" is dismissed in slightly less than a page. The treatment of the Federal Reserve System is equally superficial and it is open to discussion whether the term "decentralised" can be applied without some explanation. Industrial and Investment banks are discussed in a little over a page. In view of the fact that later on the writers urge very strongly the need for Industrial

Banks in India, *it* would not have been out of place to devote some attention to them, especially as students have much difficulty in obtaining information. All these chapters need a careful recasting and revision.

In the remaining chapters we have the usual history and discussion of Indian currency and banking. This is treated at considerable length, but adds nothing to what is already known. Both writers are strongly in favour of a gold currency, so that we have a running criticism of the Government and its policy. For students this method of treatment is a bad introduction. It would have been better to have adopted Mr. Chablani's method. Mr. Chablani's *Indian Currency and Exchange* is a more modest work, but much better in its handling of the subject. The discussion is strictly academic and is very lucid. The chapters devoted to criticism show good judgment and are worth reading. Of the Indian text-books this is one of the best which has yet been published.

The great fault which one has to find with all the publications on Indian finance and currency is that the treatment follows a more or less set routine. Within this routine treatment may be more or less good, but it is impossible to contribute anything which is not already known.

What is needed is a first-hand study of the Indian environment and its effects upon the development of banking: if Indian banking is still undeveloped and unco-ordinated the reasons are to be sought here. There are limitations to the development of European banks, and the history of the Presidency Banks (now the Imperial Bank) has significance only with reference to this environment. Yet it has never been investigated. Why have not the indigenous bankers developed into modern bankers? why have the Indian joint stock banks generally been failures? Surely the answer is more than the insinuation so often met that the European banks will not deal with them because they are Indian. Further, it is impossible to study currency and exchange problems and the part played by the Government without constant reference to banking conditions. One cannot help feeling that the investigation of banking and monetary problems in India has been largely nullified by the intrusion of politics into what ought to be a purely academic discussion.

W. S. THATCHER

Die Arbeiterfrage in Deutschland nach dem Kriege. By PROFESSOR WALDEMAR ZIMMERMANN. (Berlin: Gersbach & Sohn, G.m.b.H. Pp. 122.)

IN this compact little volume, which is one of a series published by the *Vereinigung für staatswissenschaftliche Fortbildung*, an organisation designed to keep students of social and political life abreast with European thought and movements in that domain, Professor Zimmermann presents a careful and impartial survey of the various developments which the labour question has undergone in Germany since 1918. Although some of the disturbing influences which have been at work there have been peculiar to the country, much of what the writer says would apply generally to the relations between capital and labour in Great Britain. For a time the prestige given to the German trade unions by the revolution gave to them a position of exceptional strength, and enabled labour to ride the high horse. With the financial collapse which followed, the economic advantages so secured were gradually forfeited from 1920 forward, and internal disputes and factions completed labour's misfortune.

As in our own country, the labour movement in Germany has been seriously compromised by the prominence given to purely political aims, herein responding to sinister influences issuing or directed from Moscow. On the other hand, many of the large employers, who had never accommodated themselves to the shorter work-day and the institution of works councils, lost no opportunity of speeding the reaction, and made it clear that they did not regard as permanent the loss of their old autocratic position.

Professor Zimmermann's forecast is guarded yet hopeful. He holds that to Germany's economic recovery is needed a cordial understanding between capital and labour. Capital must abandon once for all—as many of the great captains of industry are prepared to do—the old idea of arbitrary domination, while labour must cease to follow a policy of perpetual nagging and no longer press impossible demands. Both sides need to cultivate a deeper sense of social responsibility, and he laments the fact that, while most employers view their position and functions from the standpoint of mere money-making, the workers are no less steeped in materialism. His hopes are set upon the cultivation of some sort of working partnership (*Arbeitsgemeinschaft*) based on unity of interest, but he is convinced that this is a

solution of the labour problem which employers and employed must work out for themselves, for he expects but little from legislation imposed from the outside.

On the subject of the eight-hours day he admits that its introduction led in general to a large decline in production, yet while conceding that the stabilisation of the currency and the return to more settled conditions of production and prices have brought about a marked increase in the workers' "will to work," and consequently in production, the question cannot be regarded as settled. In his opinion what will happen is that Germany will retain the reduced work-day as the normal rule, but will claim the right to apply the rule with a certain elasticity so long as reparations have to be paid, since intenser effort and the improvement of labour methods will be insufficient alone to ensure the greatly increased production which the penalty of defeat in war will make necessary.

Zimmermann's book is suggestive in many ways, but at times his heavy style of writing, his uncouth, home-made words and phrases, and his long-winded paragraphs make his book a severe strain upon the reader's patience. Is it too much to hope that the New Germany, in her concern for reform movements of so many kinds, will not lose sight of the advantages which would accrue to her by a bold attempt at greater simplicity and directness in literary expression?

W. H. DAWSON

Europa als Teuerungsgrund. By SIEGFRIED STRAKOSCH. (Vienna: Hölder-Pichler-Tempsky A.G. Pp. 63.)

THIS little brochure is described as "a study of the real causes of scarcity," and its author says that it owes its existence to a consciousness of his own need for clarity on the subject. Perhaps it was rash to attempt to exhaust so large a problem in under fifty pages of text (tables excluded), and in fact the treatment of the subject here presented is scrappy and inconclusive. The author contrasts scarcity in the past and the present. Now as in antiquity the chief causes of scarcity are war and underproduction of crops, but while of old it took the form of famine, to-day it expresses itself in all-round high prices, with resulting under-consumption. Again, in the past scarcity and famine were localised; but to-day the whole world is poorer because of the Great War, though the heaviest burden of impoverishment falls on Europe. Statistics are advanced in support of several main theses—that both Europe's stock of commodities and its

production of the same have been reduced by the war; that production in Europe has become more uneconomic, in that in the production of a certain quantity of goods a larger amount is consumed than formerly, so that the *Mehrwert* or "social product of labour," consisting of the excess of production over consumption, has diminished; and that wages have not fallen proportionately to the reduced productivity of labour. Asking how Europe can create new wealth, and its productivity be increased, the author points to America as showing the way. He urges that greater attention must be paid to the physiological and psychical factors in the labour process; there must be a more extended division of labour; and greater results must be obtained from labour effort, time and material. In other words, what Europe needs to its recovery is "Taylorisation" or "Fordism" in an extreme form.

W. H. DAWSON

Die Steuerlast in Deutschland. By DR. OTTO VON MEHRING. (Jena: Gustav Fischer. 1916. Pp. 53.)

IN discussing the economic effects of the present system of taxation in Germany, Dr. von Mehring disregards the political and administrative aspects of the question and confines his attention to the influence of taxation on production and prices. Such a discussion is the more interesting since fundamental changes have been made in the German system of taxation in recent years. These changes relate not only to the redistribution of the incidence of taxation as between the Realm, the federal States, and the local government bodies, but to the method and objects of taxation; and of course the burden of taxation, federal, State and local, is far heavier than ever before. Dr. von Mehring sums up the general effect of the changes that have taken place in the words: "Taxes which fell, or were designed to fall, both formally and materially, upon actual income and capital (*Vermögen*), have in the main been replaced by taxes based on more or less external, and hence for the taxing authorities visible, characteristics." He instances as a new tax of the latter kind the turn-over tax which was introduced during the war; while others are the old or new trade taxes, consumption taxes, customs duties, and the taxes which take the form of monopolies. He recognises it as a great advantage of such taxes that they cannot easily be evaded and that they are, within wide limits, very elastic sources of revenue.

A discussion of the relation of income tax to interest, wages

and rent, both monopoly and competitive, brings Dr. von Mehring to the conclusion that this tax is one of the most difficult to transfer to the consumer in the form of higher prices, though he does not deny the possibility. His treatment of the question of tax-transference in the case of what he calls summarily "production taxes" follows Seligman, and he lays down the principles that the possibility and measure of such transference depend on the elasticity both of the supply of and the demand for the taxed article, further on whether the article is durable or transient, and also on the question whether the tax is proportional or progressive. In his opinion every such tax on consumption has the tendency to fall more heavily upon large-scale than small-scale enterprise, and for that reason to increase prices more surely; though he recognises that in practice the effect may be to bring about the amalgamation of undertakings and by this means to cut out the small producer.

Considering the German system of taxation as adopted during the era of stabilisation, he comes to the conclusion that the effect of making the income tax subordinate to taxes which can be more easily passed on by the payer, like the turn-over, company, share and scrip, bill, land, directorate, and wages bill taxes, is bound to affect prejudicially German competition in foreign markets.

It is interesting to have this indictment, from the standpoint of industry and commerce, of the defects of the taxes named as compared with the income tax, in view of the fundamentally different taxation policy followed in this country during and since the war. Dr. von Mehring, indeed, would like to adopt the English system but for the fact of the decline in Germany of what he calls "taxation *morale*," for he writes: "Without taxation *morale* there can be no effective income tax, no effective inheritance tax, no tax which pays just regard to the financial capacity of those liable to taxation. The consequence is that the reform of the German system of taxation, with a view to meeting the public needs in other ways, is bound up with the condition of a higher taxation *morale*." All that the author says upon the subject of tax evasion is well worth reading, for he shows that the responsibility for it by no means rests upon the taxpayer alone. In part he attributes evasion to the cruel action of his Government in repudiating its debts by paying off enormous loans—including war loans—in worthless paper.

W. H. DAWSON

Die Handelspolitik in Mitteleuropa. By DR. ELEMÉR HANTOS, sometime Hungarian Secretary of State. (Jena: Gustav Fischer. Pp. 111, with 8 diagrams. 7·50 mk.)

CONVINCED that the economic confusion into which Central Europe has been thrown by the peace treaties will never yield to mild measures, such as guaranteed loans and periodical visits of investigation by foreign experts, Dr. Hantos calls for a bold departure. After reviewing what has been done to effect settlement at home and restore commercial relations with their neighbours by Austria, Hungary, Czecho-Slovakia, Poland, Jugo-Slavia, Roumania, and Germany, he revives the old idea of a Central European commercial union. This idea has been put forward at different times for over half a century, particularly by the Pan-German party, but in the past political considerations have influenced its advocates at least as much as economic. It will be remembered that during the Great War it received special prominence for a time in Germany in the form given to it by the late Dr. Naumann. Dr. Hantos has nothing to do with politics and wants an economic amalgamation pure and simple. He holds that the men who dictated the treaty of St. Germain in particular made a great blunder in failing to impose a large measure of permanent free trade upon the new economic units created out of the Austro-Hungarian empire and the States which benefited by its partition. He believes that such an arrangement is still possible, and will be for the benefit of all the communities concerned, but he goes further and would unify both transport and currency as well in these territories. Rejecting the idea of a hard-and-fast customs union of the ordinary kind as impracticable, and bilateral commercial treaties as inadequate, he suggests a compromise in the form of such a customs and economic "alliance" as would be effected if two or more independent States concluded an international treaty of long duration, binding them to conclude together on uniform principles customs and commercial treaties with other States, each retaining its complete administrative independence. As he truly says, the good-will of all the States concerned is needed to the realisation of his design, and it is to be feared that this condition will alone block the way to success for some time yet.

W. H. DAWSON

Vorgeschichte und Gestaltung des Haushaltplanes der Vereinigten Staaten von Amerika. By DR. OSCAR WITT. (Finanzwissenschaftliche und volkswirtschaftliche Studien, Heft 2; Gustav Fischer, Jena. Pp. xii + 109.)

THIS brochure is the second of a series of studies on financial and economic subjects edited by Dr. Karl Bräuer of Breslau University. It is a history of the development of a budget system in the United States of America. Dr. Witt describes the originally budget-less condition of the United States and then analyses carefully the various plans for a "National Budget System" brought forward in the form of reports or bills, especially since America's entry into the War, and resulting, after many failures, in the adoption of the Budget and Accounting Act of 1921, a German translation of which is appended. The strict separation of executive and legislative functions under the Constitution of the United States has necessarily caused considerable difficulty in devising a suitable budget system. The problem is to ensure some sort of collaboration between two authorities neither of which is in any way responsible to the other. The Executive may draw up estimates and prepare a budget, but the whole scheme is liable to be upset by unsystematic changes made by a completely independent Legislature. Dr. Witt brings out the constitutional difficulties and checks the various proposals which failed of adoption, as well as the final legislation, with the principles he hold essential to a sound budget system. He comes to the conclusion that the United States does now at last possess an orderly budget system, but it is still, in his opinion, not a completely sound one.

S. SANGER

Die Grenznutzenschule. By OTTO WEINBERGER. (Halberstadt: H. Meyer. 1926. Pp. 123.)

IT is rather odd that the Theory of Marginal Utility should have given rise to so many books and that it should have been the subject of controversy. The fact that it was discovered independently by various people indicates that it is a natural idea to hit upon. The only explanation is the hatred of reasoning which is felt not only by historical economists, but by the vast majority of mankind. In Germany the historians were dominant; they looked askance at the Austrian School. At earlier times no notice had been taken of Lloyd, the elder Walras, or Gossen. Mill was dominant in England. But since Alfred Marshall it has

been possible to view the history of the theory in a proper perspective and to judge the controversies from a more detached standpoint. In a small book Dr. Weinberger has given a clear historical and critical account of the whole matter. He deals skilfully with a large mass of material. Students, as a rule, have not the time to read the original authorities; they will learn a good deal by reading this book.

C. P. SANGER

Grundlagen des wirtschaftlichen Denkens. By DR. KARL ENGLIS. Authorised translation into German by DR. EMIL SAUDEK. (Brünn: Verlag Rudolf M. Rohrer. 1925. Pp. 165.)

ATTEMPTS at the psychological explanation of economic theory are apparently increasing; in this country Mr. Diblee is one of the latest pioneers in this field of research, and abroad Professor Englis is regarded as a foremost authority. His newest book, which first appeared in Czech and is now made accessible to a larger circle of readers in a German translation, will be found stimulating not so much for what is specifically new in it as rather because of the way the author's standpoint is presented.

Dr. Englis holds that all Empiric Sciences may be divided into three categories—the Natural Sciences, which are limited to phenomena as they exist; the Teleological Sciences, which treat of the ends or designs for which certain phenomena exist: their root conception may be expressed by saying that they postulate some end; and thirdly, the Normative Sciences, the purpose of which is to consider phenomena as they should be. Economics, he holds, is essentially a Teleological Science; the fifty-odd pages in which he elaborates this thesis must be characterised as clear, logical and convincing.

This is one of his fundamental issues. Another is that every human being desires a minimum of dissatisfaction. From this premiss he proceeds to discuss the meaning of economic activities, the theory of prices, and the relation between relative marginal utility and relative marginal costs. As a rule Dr. Englis expresses himself clearly enough, but now and again his definitions lack clarity by reason of being too technical. Let one illustration be cited in proof; it is as close and literal a translation of the German as is possible. "An economic action is every change worth striving for on the part of a subject as a means towards reducing his subjective dissatisfaction." So he begins the section headed "Economic Activities." Nevertheless his meaning emerges in the course of the elaboration that follows. Man acts,

he declares, in order to reduce his dissatisfaction. As a rule he puts up with a lesser dissatisfaction in order to avoid a greater. He gets bread by means of work, which in itself is disagreeable to him, because the dissatisfaction of work appears a lesser evil than the dissatisfaction of hunger.

A third point worthy of note is the criticism of Dr. Englis of the current theory of price. He submits that the reference to supply and demand really tells you nothing, since it is not sufficient to explain the price of any one commodity as an isolated fact. The price of one commodity must be co-related to the prices of all others. Here again the student who already possesses some elementary knowledge of economics will find food for thought in the theory propounded by Dr. Englis, especially in his constant recourse to psychology as a key to the solution of economic problems. M. EPSTEIN

Grundzüge der Volkswohlstandslehre. Erster Teil: Der Prozess der Wohlstandsbildung. By DR. ALFRED AMONN. (Jena: Verlag von Gustav Fischer. 1926. Pp. vi + 403.)

DURING the last few decades a veritable plethora of books on economic problems have appeared in Germany. Old doctrines have been examined, sometimes with bewildering thoroughness, and new ones have been propounded with a zeal that at any rate bore witness to an exemplary devotion to economic studies. So voluminous has been the output that it became well-nigh impossible to keep abreast of even the more important contributions to the science. This difficulty was enhanced if the record of the last fifty, hundred, or hundred and fifty years were taken into consideration; and any assistance rendered to the student to enable him to survey this vast field with some profit to himself must of necessity be welcome.

Professor Amonn, of the German University of Prague, has attempted this task, and has acquitted himself with distinction. His is no new system of economic theory, comparable to the treatises of Marshall, Schmoller, or Philippovich; he but provides, as he himself admits, a mirror of the science in its present form. He has cast the whole into an admirable text-book, which furnishes an up-to-date, business-like and clear presentation of economic problems. A student who masters the work, of which the present is the first volume, will be adequately equipped with a knowledge not only of the main theories of the subject, but also of the names of the principal thinkers.

Professor Amonn harks back to "The Wealth of Nations" as the most suitable title for the body of doctrine which occupies

itself with man's economic activities. Partly this is due, no doubt, to his immense admiration of Adam Smith, whose masterpiece he commends as possessing permanent value; partly, too, to his desire to stress the fact that economics is first and foremost a Social Science. For that reason also he commences his study not with a consideration of such elemental notions as value or wealth, but with a survey of Economic life as a whole—of production and enterprise, the different forms of enterprise, social classes and various callings, and the agents of production; and he then proceeds to discuss goods and wants, cost and value. His second section is devoted to the problems of distribution, and here Professor Amonn is at special pains to make clear the theory of price, and in particular to elaborate Professor Cassel's statement (or equation) of the relationship between Supply and Demand on the one hand and Price on the other. This is followed by a consideration first of money and banking, and then of wages, interest, rent and profit. The third section is entitled "The Dynamics of Social Economic Activities," a caption which covers such problems as economic equilibrium in the modern state, crises, and the relation between population and subsistence. The fourth and last section provides an informative sketch of the broad history of economic science from Adam Smith to the present day. One fault that may be found with these chapters is that while German and Austrian writers are adequately considered, insufficient notice is taken of later developments in English economic thought.

Since Professor Amonn's book is a text-book, it must be judged by its method of presentation and not by its contributions to learning. As a text-book it will be found handy and serviceable. Each chapter clearly sets forth the subject matter, and is followed, in smaller type, by important side-lights and references (with verbatim extracts), containing some valuable information. In the main the problems are the old problems, but here and there the reader comes across a striking passage, as, for instance, the contrast between the Mercantilists and the Physiocrats; some of the differences between Capital and the other Agents of Production; a particularly good account of the various theories concerning economic development. On Marx Professor Amonn is "safe": his arguments against the standard economic doctrines of Socialism are taken from the stock-in-trade of Individualist writers. All these matters have, of course, been handled before; Professor Amonn's handling has a freshness which is perhaps the best recommendation of his book.

M. EPSTEIN

Lohngesetz und Lohntarif. By PROF. DR. PAUL ARNDT. (Frankfort-am-Main: Verlag der Universitaetsbuchhandlung Blazek und Bergmann. 1926. Pp. 201.)

PROFESSOR ARNDT has written an interesting book. Convinced more than ever that the outstanding economic problem of the day, especially in western Europe, is the settlement of wages, he has set himself the task of reviewing the various doctrines of wages formulated by economists of all schools, of contrasting each in turn, and of attempting to arrive at a theory which shall be scientific and at the same time shall serve as a key for the solution of the great industrial difficulties of our time.

Brief as is this study, its arguments are to the point; there is an abundance of striking and effective quotation; and the whole is constructed on a logical basis. Professor Arndt leads off with a consideration of Economic Laws in general, differentiating four classes: those that emerge from a study of economic development, those which are purely theoretical in character, those which are in accord with the demands of ethics, and those lastly which politics makes a reality by conceding ethical demands. In other words, the "laws" of economics are either theoretical or practical.

On this foundation Professor Arndt considers the nature of the law of wages, and renders a service to students of economics by laying stress not only on the variable meaning of the term "wages" as used to-day, but also on the uncertainty of its connotation in the works of writers of different times and different countries. Does, for example, the word to-day include salaries and fees? When Ricardo speaks of wages, is he thinking of the same thing as Lassalle? This important aspect of the question is skilfully handled by the author, and he then proceeds to his main thesis.

He first reviews the conception of "just wages" of the period when gilds dominated industry—a sound enough rule for the regulated economic conditions of the Middle Ages. But when economic freedom revolutionised the economic activities of men, an entirely new explanation of wages had to be evolved. Soon theory crowded on theory. There was "natural" wages of the classical writers, the "wages fund" of John Stuart Mill, the "iron law" of wages as enunciated by Lassalle, the theory of the "Industrial Reserve Army" associated with the name of Marx, and the attractive suggestion of Franz Oppenheimer of the "marginel yokel."

All these theories are marshalled in turn, and it is soon evident that Professor Arndt's sympathies are entirely with the classical

economists, or rather with the latest elaboration of their theories by Professor Dietzel, whose doctrine is the simple one that wages depend on production; that wages rise as production rises and fall when production falls. Wages, says Dietzel, are high in those countries where all the conditions are given for increased production—fertile countries, those with a highly developed transport system and with ample supplies of capital; they are high, too, where the individual worker, be he artizan or creative artist, produces an abundance of goods or services. On the other hand, wages are low where the opposite of these conditions prevails. This, Dietzel holds, is the one really correct explanation of wages, and Arndt elaborates the view with great learning. The productivity theory of wages operates without let or hindrance; and attempts to regulate wages on any other basis, whether by the State through legislation or by the Trade Unions through collective bargaining, are doomed to failure. Professor Arndt is scornful of those who like Gide do not sufficiently appreciate the Classical writers, and those who like Mr. and Mrs. Sidney Webb or Professor Brentano underestimate the power of the individual worker and claim that he must needs be organised. Professor Arndt admits that Trade Union action has advantages, but they can be over-valued.

The end of the matter in the author's opinion is that there is only one certain method of increasing wages, and that is by increasing the productivity of labour. This view has been long held by economists in the United States, notably by Carey, Walker, Seligman, and J. B. Clarke who calls it "a deep acting natural law"; and is supported in our own country by the authority of Jevons and Marshall. Even those who do not agree with Professor Arndt's conclusions will, we believe, readily admire the reasoning by which he arrives at them and the learning he shows in their support.

M. EPSTEIN

Die Marxsche Geldtheorie. By DR. HERBERT BLOCK. (Jena: Gustav Fischer. 1926. Pp. viii + 145).

BOTH in the vast literature concerning the doctrines of Marx, and also in the studies on monetary theory which have recently appeared in such abundance in Germany, there is (Dr. Block declares) a curious lacuna—a consideration of Marx's theory of money. To make good the omission Dr. Block has written this dissertation, and students of Marx will be grateful to him.

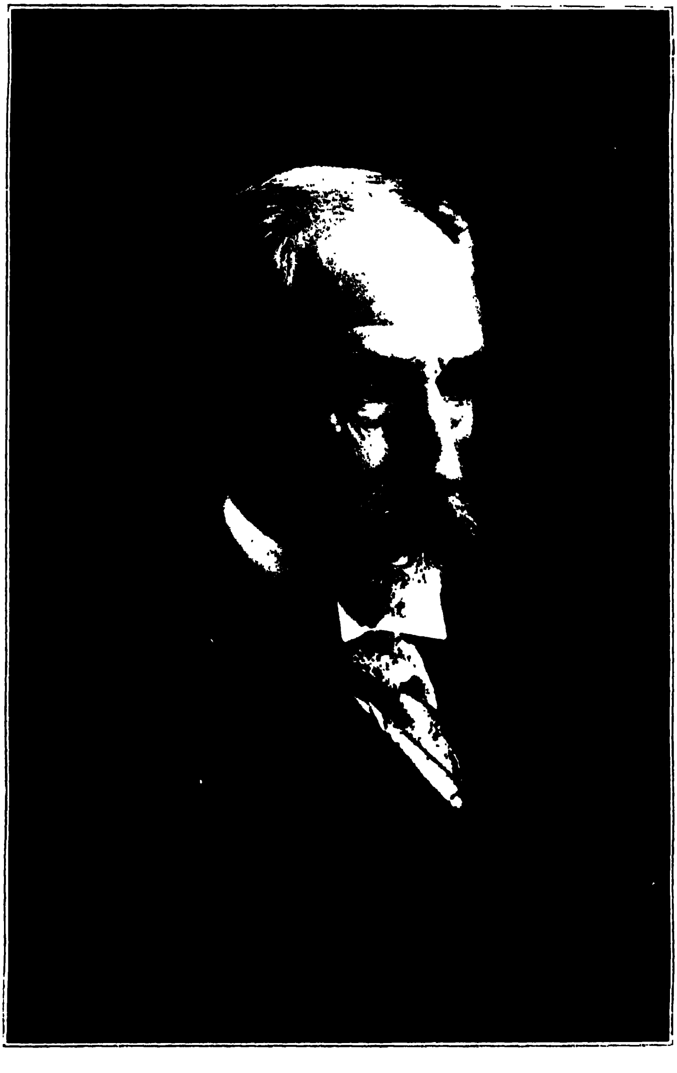
The book is a good example of those numerous specialist

studies which are a characteristic of German scholarship. Dr. Block evidently knows his Marx. In the first section of the book he sets forth without comment and with a wealth of quotation what Marx teaches as to the nature of money; in the second, with a great array of learning, he estimates the Marxian view, which he values highly. In Dr. Block's opinion the only modern author who has written adequately on the philosophy of money is Simmel; but Simmel, he holds, owes much to Marx, a thesis he elaborates in one of the best chapters of the book.

As regards Marx himself, Dr. Block submits that his specific contribution to the theory of money was the manner in which he wove the existing doctrines into a system, bringing them into harmonious relation with his theory of value.

Dr. Block's book is not easy reading, but it will repay attention not only for the light it sheds on an important aspect of Marx's teachings, but also for its handling of the many writers, critics and disciples alike, who have occupied themselves with Marx's theory of money.

M. EPSTEIN



FRANCIS YSIDRO EDGEWORTH

In Memoriam.

Οὐ χρόνος οὐ γῆράς σε κατέφθισε πρέσβυν ἔοντα,
ἔσβεσεν οὐδ' ἀκμὴν σώματος οἶδμα νόσου.
ἀλλ' Ἄιδου δεδιὼς φθονερώτατος ἥρπασε δαιμών,
μή τις ἐνὶ θνητοῖς ἀθάνατος τέλεθοι.

R. H.

[*To face p.* 647.]

NOTES AND MEMORANDA

MEMORIES OF F. Y. EDGEWORTH

To the fine tribute paid by Mr. Keynes in the March number of this JOURNAL, the friendship of half a lifetime enables me to add with diffidence some personal recollections and impressions.

It was C. F. Keary who first brought us together, on the steps of the British Museum, in 1889. Since then, as we lived all those years within a few yards of each other in Hampstead, there were innumerable walks and talks, of Sunday afternoons, or casual meetings in early morning, notes and messages in plenty, letters very few. There were (rarely) elaborate letters confidential and combustible. In private talks, it must be said, he dived where he chose and one could not always tell where he would come up again. When confronted with formal papers at a club or public meeting, he wandered much less; he was a good listener and good-natured critic, though he would quote "nullius addictus jurare in verba magistri" to preserve his privileges.

Our friendship passed successfully through the ordeal of travel. He was not in all senses a good traveller. He was a bad sailor even on Swiss lakes; and, having crossed the ocean once, would never do it again. He was sometimes "at sea" on land. He has been known to mislay his railway-tickets, and to let a train pass at a junction when he was deep in a book. Such little annoyances never dwelt long on his own mind or prevented rapt admiration of the glories of nature when once he waked up to them. I remember only one occasion where a novel successfully competed with nature. It was in the Gleckstein hut above Grindelwald. There was a brilliant display of lightning far below us in the valley. He kept saying "Yes, very fine," without raising his eyes from Bulwer Lytton, bequeathed to the hut by a previous traveller. His iron frame made climbing easy to him, and the strength seemed to most of us unaltered to the last. The head seemed unaffected too; always *mens sana in corpore sano*. Though he was always learning, he unlearnt little; his views of life were in essentials unchanged; he remained in philosophy naturalistic, in economics Ricardian, in ethics a Utilitarian of the old school, with the "slogan" of "Greatest Happiness *sans*

phrase." To the end his early heroes remained on their pedestals. The wonderful physical frame saved him from the changes of opinion due to physical depression. A broken arm seemed to cause no breach in good spirits. "Unable to write autographically," he used the typewriter—till he was well again (1908).

Though (I think) he never abjured his philosophy, he expressed no regret for the abandonment of philosophical studies. On the other hand, like Sidgwick he may have cherished in his heart the wish some time or other to write "real literature," for which he might well be said to have hereditary aptitude. He had a gift of expression not given by any system of education and not imitable or easily parodied, working slowly and surely rather than fluently. But he never "let himself go." He was content to enjoy literature, without contributing to it (so far as I know) even the conventional Latin verses of the 'sixties at Oxford. He never read so exclusively in his own subject that he had not time for excursions into Dante and Æschylus, Milton or Gibbon, and into lighter literature. He appreciated Edward Caird's comment on a philosophical colleague who so filled every waking hour with philosophy that he read every book on it to the last German pamphlet. "Most of us," said Caird, "after a hard day's work are glad to escape into literature." In Edgeworth's case the ancestral bent could not be concealed. This on the cutting down of drafts is from an early letter: "On trying the method of scission I found that now as in Solomon's time, there was the strongest objection to that process in the parental mind." So in his latest writings, *e.g.* on Pareto in the new edition of Palgrave's Dictionary (1926, III. p. 711): "The *mathematical appendix is a gem which, unlike the gold upon the* statue of Athene on the Acropolis, cannot be separated from the splendid object which it decorates." Even better in an early article on Böhm in the Academy (May 4, 1889): "Very instructive is his conception of the National Subsistence Fund; a mass of commodity of which one part only is ready for immediate consumption, the other portions are destined for the fruition of future years. It is like the garden of the Phæacians where pear followed on pear and fig on fig in successive stages of maturity." Here we have an ornament turned into an argument, without shocking us. Edgeworth would have regarded Antony's rejoinder to Cleopatra (*Antony and Cleopatra*, I. i.) as a good point worthy to be met against his own position (see ECONOMIC JOURNAL, September 1926, p. 464): "If it be love indeed, tell me how much," says Cleopatra, and Antony answers: "There's

beggary in the love that can be reckoned." It was curious in this connection to find him maintaining (not once or twice) that Pope's Homer was often superior to the original. I associate several parts of Hampstead Heath with this contention.

He included Experiments among his relaxations there. Soon after first acquaintanceship I was made victim of two of these. "Guess my height; I'll throw back my coat and give you every advantage"; then the record went down, to be compared with other guesses, say of Sully or Keary. "How many five-pound notes weigh a sovereign?" The right answer is six, and the wrong answers (he said with a chuckle) ranged from ten to a thousand! When I rejoined him after the War, he was inquiring into Wasps and their movements in and out of a mound at the Golf ground. The fruits of this investigation (in which I was allowed to help) went, I believe, to Professor Karl Pearson; and the record is printed in Gini's *Metron*, July 1920. For a wonder there were no casualties on the side of the inquirers. The object was: "To determine the average duration of an expedition made by bee or wasp, the time which elapses between the moment when she issues from the hive or nest and the moment when she returns thereunto. Lubbock attacked the problem directly by marking individual insects. I have employed the logic of statistics to obtain an inferential result" (*Metron*, I. i., 1920, "Entomological Statistics"). It is curious to remember that one of his favourite passages in Dante referred to insects, and he showed no dislike of the mystical setting of it:

> "Non v' accorgete voi, che noi siam' vermi
> Nati a formar l'angelica farfalla,
> Che vola alla giustizia senza schermi?"
>
> *Purg.* X. 124-6.

He would dwell on the exact force of every word, with the thoroughness of a scholar. In the same spirit he said on one occasion: "I have been trying to 'get up' Gibbon as we used to 'get up' Herodotus and Thucydides for Greats."

He collected his friends' opinions on the subject of matrimony and told me he was disappointed: "They were all so happily married." But here as usual he had formed his own opinion first, not to be much modified by any answers to his inquiries. The experiments, so far as I know, were not extended by him, as they were by Sidgwick, into Psychical Research. He greatly enjoyed Palgrave's story (1890) that Sidgwick had a familiar spirit called Pokey. Partly, I think, from his stronger sense of humour, Sidgwick came near to rivalling Marshall for first place in

Edgeworth's admiration; but on the whole Marshall was the great Apollo, oracle, or highest authority, if our friend could be said to have such. "Marshall was at the Council to-day; it was as if Achilles had come back." But for Marshall, he would have found it hard to part from Jevons on the ultimate basis of value. When Marshall seemed to be somewhat sorely pressed in the controversy with Cunningham (ECONOMIC JOURNAL, Vol. II. 1892, pp. 490, 519), Edgeworth, then sole editor, decided: "Sat prata bibêre," and the disputants finished their fight elsewhere.

Where his estimate of an author was low, he preferred not to touch him at all; and, if the notice could not be avoided, he used banter for acrimony. If humour is sarcasm without the sting, he showed plenty of humour on such occasions.

No one was, in another sense of the word humour, more good-humoured than he and farther from the "gruffness fatal to friendship"; one of his own favourite quotations from Aristotle (*Ethics*, VIII. (5)). A solitary contributor, in this ingenious beyond all other men, succeeded in quarrelling with Edgeworth, who "had been rude" to him. The complainant got a patient hearing from an incredulous Council. We knew our friend to be capable of mistakes like other men, but to be entirely incapable of intentional discourtesy. It was against his nature to inflict an insult, and against his habits to be conscious of receiving one. His "pre-occupation" or abstractedness carried him far. On one occasion during an air raid, he discussed philosophy with a famous living professor of it, by Jack Straw's Castle, where the anti-aircraft gun was doing its best to defeat the enemy and deafen West London.

It seemed to strangers a nearer approach to a fault that he loved to hold the balances and elude a positive answer. Some even found it out of character for him to come down as he did in 1903 on the side of Free Trade. In general politics he was not really neutral, he was Philosophical Radical even to Woman's Suffrage. On the other hand, he believed in the principle set down in his article on Pantaleoni: "His attack on the Socialist Jaurès, who is accused of traitorous correspondence with his country's enemies, reveals or at least suggests the presence of an element not favourable to economic science, some heat of political passion" (new *Dict. of Political Economy*, 1926, Vol. III. p. 710). He kept his enthusiasm well in hand; but it was there in plenty, and was not confined, as an old friend once alleged, to the theory of Probability. No doubt that was an element in which he moved with a keen pleasure, shared only by elect mathematicians and denied to the ἀγεωμέτρητος (*Math. Psychics*, p. 3). He applied the

theory playfully when we were caught in a thunderstorm and took shelter (in face of folk-lore) under a tree : " I know from the theory of probabilities it is unlikely we shall be struck, and I know from experience that if we stand out there it is quite certain we shall be wet and have a cold." Another playful application was: "Other things being equal the most unpleasant event is the most probable."

He was provokingly modest; and deferred to many as being far above him—not only to Marshall and Sidgwick, but to Giffen and Goschen, Mrs. Bryant and Mrs. Webb. To such he would always editorially give a wider latitude than to " Sir Toby and the lighter people " : " It is with literary as with ordinary justice according to the old adage. One man may with impunity try to remove what seemed a secure possession of science, while another cannot safely look over the hedges and boundaries which received opinion fixes " (*Journal of Education*, April 1, 1890, review of Mummery and Hobson on the Physiology of Industry). On the other hand : " We hold [here is his reservation] that for the mastery of a speculative and controversial science a certain multiplication of authorities is desirable. The fatal tendency of teachers to inculcate, and pupils to learn by rote, the very phrases and metaphors of a favourite author can only be corrected by dividing the allegiance of those who, like the Romans of old, ' rush to slavery.' As Gibbon says [Chap. LXVI. towards end] of the dispute between Platonists and Aristotelians which followed the revival of learning, ' some spark of freedom might be produced by the collision of adverse servitude ' " (*Journal of Education*, April 1, 1890, review of Andrews' Institutes). He had a proper respect for the great newspapers; " like the higher birds of prey they will not touch anything in the least degree stale," was his warning at an early Council meeting.

His dearest friends will not deny that he often over-estimated the power of the ordinary economist, still more of the mere ordinary reader, to follow him. His remarks on Walras might not unfairly be applied to himself, and I suspect he wrote them down with his own weakness in mind : " The argument is rendered obscure, or at least unattractive, by the use of symbols in excess of the modest requirements of elementary mathematical reasoning. The exuberance of algebraic foliage rather than the fruit of economic truth is the outcome of science thus cultivated. It is remarkable that the neatness which characterises Prof. Walras's literary style should not be reflected in his mathematical compositions." " His scheme of dosing the circulation by a nicely

calculated injection of supplementary currency reminds us of the tailors in Swift's Laputa, who went through laborious mathematical computations in order to determine the measurements of a suit of clothes, which after all fitted very ill. When Professor Walras offers us 'the solution of the Anglo-Indian monetary problem,' we think of Fluellen in the heat of battle discoursing about the 'discipline of the wars.' There is a discipline adapted to the scholars and which it is profitable to have studied, but which has no direct bearing upon action" (*Nature*, September 5, 1889, "Walras and the Mathematical Theory of Political Economy").

If we were able to rid ourselves of a weakness by being conscious of it, the literary and even the economic world would be different from the present. As it is, every man has the defects of his qualities, or, Edgeworth would have preferred to say, every man has his personal equation; and he must take himself as he is for better or worse. I have known our friend smile at the smile excited in an audience when he proposed to clear up an argument by a diagram on the blackboard. He went calmly on his way and let people talk. He made up his own mind whenever the matter was within his own ken. Where the matter was out of his province, his humility was profound. He was fonder too of maintaining his argument than of converting others to his own conclusions. Yet it sometimes occurred to him to care for a friend's soul. He wasted a copy of Walras on me, and withheld a book of D'Annunzio when he had praised it and I wanted to borrow it: "Not the sort of book you ought to read!" a reply which caused much good-natured merriment in my house, where few visitors were so beloved as he. He said there once to the lady of the house: "It has been found that there are more male idiots born than female; now you would not have expected that, would you?" Then he saw what he had said, and joined heartily in the laugh.

No one has described more fully and faithfully than he the economic position of women (*e.g.* in this JOURNAL, December 1922, December 1923), and he favoured all their claims. But this did not prevent sly hits, of a contrary character. "Never ask a woman the way if you can find a man," was thrown out in a Yorkshire walk. Not once or twice he cited without displeasure, "He for God only, she for God in him," "Her husband the relater she preferred Before the angel." He much enjoyed the "queer answer" given to him by a lady candidate at the College of Preceptors: "What are the objections to a paper currency?"

Answer: "It crumples so and dirties; it *rustles so.*" This dates, however, from 1890, the dark ages.

He bowed before the Arts and made it a duty to take his friends to the yearly exhibitions of the Royal Academy. Music appealed to him little, and the Church not much more. He was not an *anima naturaliter Christiana,* unless in the sense in which "Christianity" is "as old as the Creation." He said once of a common friend, removed even more suddenly than himself, that he realised Aristotle's notion (*Ethics,* X.) of the βίος θεωρητικός, the life devoted to study. As a matter of fact, Edgeworth realised it himself, fulfilling his destiny by putting forth his best powers, without hindrance of circumstances. The consequent peace of mind was a greater reward to him than his wide reputation and honours. He recognised with deep gratitude the devotion of his friends; but he never, I think, fully knew the influence exerted by the attractiveness of his character beyond that circle. His originality was sometimes set down as eccentricity; but that suggests waywardness, which he had not, in what to him were the main purposes of life. His personality was of a type of its own, unlike any we had ever known or shall know elsewhere.

JAMES BONAR

SOME PRACTICAL IMPLICATIONS OF CONTROL OF CREDIT

IN the following article it is proposed to discuss some practical implications of credit control schemes in general; not to consider the merits and demerits of any particular proposal. The reasoning is founded on a study of the existing organisation of business and banking.

1. Since many schemes for control depend on manipulation of the bank rate, it is desirable to discuss some of the reactions of bank rate movements on joint-stock banking.

When, for example, bank rate is low, deposit rates are low. Low deposit rates discourage the keeping of balances at joint-stock banks, and this tends to reduce or completely offset that growth of deposits which has been a definite regular feature of English banking history, particularly since 1844. This affects the growth of either the volume of bank investments, or bills discounted, or advances.[1] Which of these, and to what extent, depends on the precise policy that was being pursued prior to the

[1] Bills discounted are usually included under advances.

fall in bank rate: since it is an unwritten convention of joint-stock banking practice that the total of advances should bear a certain more or less well-defined ratio to deposit totals and cash reserves. If, as is likely with a higher bank rate, the limit of this ratio has been reached, obviously the growth of further advancing is retarded or completely prohibited. Only assuming that the limit of the ratio had not been attained could advances be extended, and even so the range of extensibility is likely to be small, since it is only by adhering to the maximum percentage of advancing that banks can achieve the greatly desired end of maintaining previous profits. In the circumstances it is much more likely that the greater proportion of the possible increase would go to enlarge discounts or investments. The effect of doing this would be to subtract from that direct support to industry and trade which is preponderantly given by direct advances.

The necessary assumption of this and following sections is that the changed rate endures sufficiently long to allow of these effects being worked out.

2. It is generally assumed that a lowered bank rate, by reducing the rate of interest which joint-stock banks have to pay for their deposits, will *pari passu* enable them to reduce their interest charge for advances, with the logical effect that borrowing will be stimulated. In principle this is true. But it is the custom of bankers to charge 1 per cent. over bank rate for advances, with a minimum charge of 5 per cent. When, consequently (for example), bank rate falls from 4 per cent. to 3 per cent. or lower, the principle does not operate; and thus it cannot be argued that the extra demand for advances will arise. In view of the fact that bank rate is often (in normal times) under 4 per cent., this consideration is of some importance. It may be pointed out further that additional borrowing in the capital market in place of the presumed extended borrowing from the banks is unlikely, mainly because this is a form of permanent, and is therefore on a different basis to temporary borrowing.

3. To take now the case of a raised bank rate. Again (on the same basis of reasoning as was mentioned in Section 2), it is generally argued that this acts as a deterrent to the obtaining of advances from banks. And again the principle is sound. But, owing to the differences between the system of advancing which obtains in London as contrasted with provincial banking, provincial traders are charged a "commission" on cheques drawn in addition to ordinary interest charges (or allowances).

And most sizable accounts are conducted on either a "sliding" or "contract" commission basis. In the latter, this means that the charge is fixed; in the former, that the charge is decreased —sometimes by half—after a certain turnover is reached. More cheques, and for larger amounts, are drawn in times of business activity (which normally coincide with high interest rates) than in times of depression (which normally coincide with low interest rates). Therefore the effect of either of the above practices is to reduce traders' burdens in the matter of banking charges, when, from the view-point of credit control, they should desirably be increased; and vice versa. Since commission charges are appreciable this modifying fact is of some importance. And further, the London system acts in the same direction; for the whole amount of advances sanctioned by the banks is normally charged with full interest, whether it is utilised completely or partly. Clearly the burden of expense is lessened in times of activity and increased in times of depression.

4. Special cases of low and high bank rates apart, attention may now be called to the fact that joint-stock banking profits are greater in times of high than in times of low interest rates. There are many causes of this. But one significant reason is that, after bank rate reaches a certain high point, deposit rates are not actually raised so as to allow the customary 2 per cent. margin. Nominally they should be so raised. But, for example, provincial banking in 1920 showed that when bank rate was 7 per cent., deposit rates were rarely increased beyond 4 or 4½ per cent. This practice may be the outcome of the observation of principles which have long underlain provincial banking practice—principles which still operate more strongly than may be believed. But whatever the explanation, it is clear that the total of deposits was thereby restricted, and this must have affected the possible volume of advances.

5. In the preceding sections it has been assumed (as is, in fact, generally assumed in schemes for credit control) that borrowing from banks, either as a temporary or comparatively permanent measure, is a universal practice in the business world. But prolonged study of a number of companies' balance sheets shows that there is a growing tendency for the larger and more progressive companies to leave surplus assets and reserves in the business instead of disbursing them. And there is evidence that many of the more important private concerns act similarly. These are normally invested until the time comes when extra floating capital is required. It is reasonable to assume that with

the constant manifest tendency for individual business units to increase in size, this practice is increasing. Obviously this lessens the powerfulness of the direct effects of high or low bank rates, and invalidates the assumption that such direct effects are all-embracing. But are these offset, partially, if not entirely, by indirect effects?

6. The main indirect effects may be classed as—

(*a*) those working through psychology;

(*b*) those working through rationing of bank advances.

On (*a*) great stress has been laid by exponents of monetary correctives of the trade cycle. It is assumed, for instance, that when bank rate is raised to a high level, business expansion receives an effective check, partly because the cost of borrowing becomes prohibitory, but chiefly because confidence in the existing and future price levels is dissipated. Undoubtedly this is true in respect of the money market and other highly organised and therefore highly sensitive markets. Certainly, however, less highly organised markets do not feel the shock equally. But, more important, resulting from the argument of the preceding section, many firms are unaffected by the change. It cannot, therefore, be expected that even psychological influences will spread with equal intensity to them. Hence not all kinds of production receive the same degree of discouragement; and this uneven result is augmented or diminished according to the sensitiveness or insensitiveness to price changes of the markets in which goods are finally sold, as well as by the relative state of different markets (*e.g.* cf. commodity markets such as rubber, cotton, and iron and steel, which are influenced by factors special to each as well as by general factors).

As for (*b*), much depends on whether, first, all banks are working at or near the same percentage limits of advances to liabilities, and therefore, second, whether all banks are uniform in their methods of rationing advances. In view of the fact that not all the joint-stock banks are at all equally represented in the different types of commercial area,[1] it is unlikely that either of these conditions is realised. But even were this so, it is futile to assume that any rationing of advances done by the banks can be without effect on the distribution of loaning, particularly because bankers do not so much concentrate on proportionally reducing existing advances as on refusing, or greatly curtailing, applications for new advances.

[1] Cf., for instance, the special type of area in which the four large Lancashire banks function, with the more or less general area of the "Big Five."

For these reasons it is not to be expected that the indirect effects of manipulation of bank rate will offset the direct effects.

7. Though another and final consideration is perhaps of greater historical interest than of actual present-day significance, it should not be overlooked that the English banking system has of late years been undergoing considerable basic changes in structure. For example, in the matter of numbers, it may be pointed out that there were thirty-eight banks in 1914; now there are twelve. The reduction of numbers has had its inevitable counterpart in growth of size and in the upspringing of a violent competition between the leaders. One effect of the growth of size has been to create organisations which possibly are uneconomically large, since the ratio of profits to expenses has decreased, and percentage profits have been reduced.[1] The effect of this, coupled with the violent competition, has been to increase the margin between deposit and lending rates from $1\frac{1}{2}$ per cent. to 2 per cent. (in 1921). This cannot be without effect on deposit growth. Because of the deflationist policy of the last few years it is difficult to disentangle from published figures what has been the precise effect, but undoubtedly the reaction on the policy of credit control has been to some extent neutralised by the increased tendency to raise the conventional maximum proportioning of advances to deposits, and to assign less importance to the prescriptive relation between deposits and reserves. It is possible, if not probable, that the present phase of virtually unrestricted competition will in future be replaced by some less violent manner of working. And this cannot be without some reflex effects on the policy of credit control.

J. Sykes

Credit Issues and Price Level

Professor Pigou has contributed an article to the Economic Journal in which he endeavours to expound certain conclusions arrived at by Mr. D. H. Robertson in his recent book, but the subject seems to me far from clear, even yet. The problem dealt with is that of expressing the mechanism of inflation and determining the extent of the levy which the money-issuing authority can extract from the public by means of inflation. It is agreed that the final effect on prices is in accordance with the usual theory, viz. a rise in proportion to the total stock of money; the response of prices is not necessarily immediate, and the authors

[1] *Vide* my *Amalgamation Movement in English Banking*, 1825–1924.

try to find what happens on the basis of certain assumptions as to the rapidity of response. They, however, make their assumptions very arbitrary, and treat them by a discontinuous mathematics which seem to me not only inelegant, but misleading.[1] The assumptions are as follows: that as soon as inflation starts, prices rise to the level that would be due to inflation continued for the "period of circulation of money," remain constant during that period, then jump again at the beginning of the second period, and so on. Merely to state these assumptions clearly casts discredit on them, especially as the period of circulation has no concrete existence; an appeal to arithmetic makes them even more dubious. If the argument as applied to one month (ECONOMIC JOURNAL, Vol. XXXVI, p. 219) is true, why not to one day? but that would mean (taking the illustration given, which corresponds roughly to English conditions) that if the English banks one day issued £666,666 of new credit, prices would at once rise by 8⅓ per cent. Are the authors seriously prepared to defend this result?

It is surely not necessary to make such violent assumptions in order to deal with the problem. As regards the amount of the levy, the solution I gave some years ago (ECONOMIC JOURNAL, Vol. XXXII, p. 557) is based on the hypothesis of immediate response, but is more general than Robertson's in that it covers the cases where elasticity of demand for money is not unity; and it is arrived at by the ordinary continuous reasoning of the integral calculus. It could be widened to include the case of delayed response, at the expense of making the mathematics more complicated; but it is hardly worth while to do so, because, as Pigou shows (and this is a valuable addition to knowledge), the rate of response only makes a few per cent. difference to the amount of the levy.

What is more interesting is to find out the attitude of the public towards inflation. The most illuminating information I have come across is that given by Katzenellenbaum.[2] There are two different psychological points involved: (1) Do the recipients of newly created money treat it differently from the way the public treats money already existing? (2) Does the public modify its attitude towards money when inflation occurs? The answer to the latter question can be put conveniently in terms of the elasticity of demand for money (e). Normally $e = 1$, but history

[1] The two theorems of p. 218 are, I think, consequences of the mathematical method used, not of the economic facts.

[2] Katzenellenbaum, S. S., *Russian Currency and Banking* (London: King. 1924).

seems to indicate that at the beginning of inflation the public accepts the new money with complacency, assuming it to be of the same value as the old; hence the total real value of the currency increases and $e > 1$. Later on there is the "flight from money" expressed by $e < 1$.

As regards point (1), if the creation of new money is only a moderate increase in loans for productive purposes, it seems reasonable to assume that enterprisers treat it just as they do their existing stocks, *e.g.*, a manufacturer, having secured a large contract, arranges for an overdraft, and spends it in much the same way as if he had a credit balance. It is true that the money, being in the hands of business men, will probably have a velocity of circulation above the average for money as a whole, and so its effect on the level of prices will be above the average. This is in general accord with Robertson's assumption as to the influence of the first new issue; it involves the deduction that the levy extracted by the bank is somewhat less than will occur if $e = 1$, but it is hardly possible to make a quantitative estimate. On the other hand, if the new issue is by the Government on account of budgetary deficit, and is only the beginning of an inflation, the effect (according to Katzenellenbaum) is the reverse.

We may, if we choose, analyse the effect of the new money into two parts: (1) static, due to the fact that the stock has been increased (without restriction to the case of e being unity); (2) dynamic, or an effect of the impact of new money, or of the addition to the daily stream. The static effect is dealt with by my formula; the dynamic effect would modify that formula to a small but unknown extent. Inquiry might be directed to finding out what this dynamic effect amounts to.

The last theorem of Robertson's discussed by Pigou is of considerable practical importance, and appears to be sound. I concur in the hope that Mr. Robertson will discuss it in more detail, and trust that he will not regard the above criticisms as any disparagement of his highly original analysis of saving.

R. A. LEHFELDT

OFFICIAL PAPERS

Report of Royal Commission on Indian Currency and Finance. (Cmd. 2687.)

THE currency system developed in India after 1899 was a gold exchange standard, under Government control, based on a 1*s*. 4*d*. rupee. It worked effectively until well into the war period,

but was finally broken down by the rising price of silver, and a premature effort to restore it in 1920 with a new parity of 2*s.* (gold), as recommended by the Babington Smith Committee, failed. Since then the rupee has been a managed currency bearing no fixed relation to gold. By August 1925, the date of the recent Commission's appointment, Great Britain had returned to the gold standard, and in India the Government, by correcting their disordered finances and by skilful monetary management, had brought the rupee to comparative steadiness at the rate of 1*s.* 6*d.*, and the adjustment of internal prices to that level seemed well advanced. Thus the moment was apparently ripe for stabilisation and new constructive work on the entire system. There is an obvious parallelism between the task of this Commission and that of the Fowler Committee appointed after a like interval of external inconvertibility.

The pre-war system established the practicability of a gold exchange standard; kept exchange steady; built up a large reserve of gold and gold securities; and was associated latterly with an amazing development of the use of notes. In the end, too, the same school of finance achieved the often attempted unification of the Presidency Banks by constituting from these institutions the Imperial Bank of India in January 1921. The system was an indispensable link between the old silver standard and an unqualified gold or gold exchange standard. It was not itself a full exchange standard because, starting under untried conditions and without gold reserves or assistance from a centralised banking system, the Government were unable to undertake an unqualified obligation to support exchange. But the procedure eventually elaborated was, in fact, effective and won public confidence. The exclusion of the banking element remained to the last. The Chamberlain Commission, stimulated by Mr. Keynes, had recommended early investigation of the question of a Central Bank, but action was indefinitely delayed by the outbreak of war a few months later.

After the war and the currency breakdown in 1920, the monetary system in India became a political issue. Educated Indians, still faithful to the teaching of the Fowler Committee, saw in a gold standard with a gold currency an ideal and wholly automatic system, which would reduce control from Simla and Whitehall to a merely mechanical function, and generally enhance India's international status. These aims acquired unexpected support and prestige when it became known last year that the Finance Member, Sir Basil Blackett, aided by his staff, had formu-

lated a responsible scheme for the introduction of a gold standard and a gold currency and was prepared to justify it on monetary and economic grounds.

The Commission recommend stabilisation at 1*s.* 6*d.* (gold), the rate already virtually established. They reject the gold currency scheme, as they were bound to do in view of its certain reactions on silver and apprehended effect on gold. But they have consistently endeavoured to approach their problem from the Indian standpoint. Indian opinion with its "Victorian" views as to gold currencies—I am using Sir Basil Blackett's term. Sir Basil Blackett himself with quite individual views which he presented in evidence with much force and ability, and the Commission, who reject the idea of a gold currency altogether, find common ground in the formula that any new system must be one which commands public confidence in India. This is the key-note of the Report considered as a piece of exegesis, and inspires one of the most important of the substantive proposals. I refer to the suggested issues of gold in India. As regards the main scheme the dominant motives are definitely monetary. They are: first, to build India's currency system on an independent gold basis; and, secondly, to stabilise the system and economise the use of gold by the perfecting of the correcting mechanism. The Commission propose the institution of a true Central Bank, with complete control of currency and credit; administering the note issue; transacting all the monetary business of the Government, including remittance; and holding the Government balances and the banking reserves of all banks operating in India. The currency will be rendered elastic by the adoption of the proportional reserve system. The reserve as finally constituted will include not less than 40 per cent. gold and gold securities (gold 25 per cent., half in India) and in normal practice 50 to 60 per cent.; and not more than 10 per cent. rupee coin and 25 per cent. Government of India rupee securities. A margin is thus left for the holding of commercial bills. The paucity of such bills in India constitutes a serious obstacle to the activity of a Central Bank—much important evidence was submitted on this point—but the Commission anticipate that the use of bills will rapidly extend once the bank is launched. Exchange is to be maintained and a true standard on a gold basis to be finally established by the imposition on the Bank of standing obligations (*a*) to buy gold without limit in India at par, and (*b*) to sell gold without limit for delivery in London at lower gold point, such gold transactions to be in 400 oz. bars as in the case of the Bank of England. A

third obligation—to sell gold in India on special terms—has no practical bearing on the foreign exchange arrangements, though presented in association with them. It will be noticed later.

The transition to an unconditional gold or gold exchange standard under some form of banking control is a step for which India is ready and a recommendation in that sense was to be expected. The distinctive features of the Commission's proposals, so far as I have outlined them, are, (*a*) the large gold holding and (*b*) the Central Banking proposals. On present figures a 25 per cent. gold holding would mean some £45 millions. The gold now held is about £22½ millions with about £60 millions of sterling securities behind. Thus India will pay rather heavily for sharing the burden of the world's gold standard system. I think personally that the Commission's decision that India's gold holding should be really substantial is right. But the Report fails, perhaps, to supply an adequate statement of the good case which could be put up on the other side, *i.e.* for an exchange standard on the lines of the Genoa Conference resolutions.

The Commission's most individual and valuable contribution to India's monetary problems is their authoritative advocacy of a Central Bank. The idea, of course, in one form or another, is not a new one. Mr. Keynes anticipated the present Commission and Mr. E. A. Hambro in 1899 anticipated Mr. Keynes. But no previous Commission, acting as a whole, have had the courage and conviction to throw their whole weight into this project; or have systematically correlated the often discussed question of the function of gold in India with the little regarded but vitally relevant questions of credit control and the correcting mechanism generally. The Commission's constant disparagement of the pre-war system is a little grating and wanting perhaps in the historic sense. But I think that in emphasising the need for better correcting mechanism and for unitary control of currency and credit they have put their finger on a cardinal defect in that system and one not to be remedied save by organic change For that reason, on the monetary side, and sooner or later on political grounds, once India had started on the road to self-government and the party system, it was inevitable that the direct management of the currency should be taken out of Government hands. The practical difficulties in launching the new bank will be formidable and it is by no means certain that it will function very effectively at the outset. But I am persuaded that the Commission are right in insisting upon a start being made, and also in preferring a new agency to the Imperial Bank of India.

A by-product of the Commission's work will be its educative influence. Their report will take the place in India of the Fowler Committee's report as the *locus classicus* for monetary doctrine, and it may be expected that the new ideal of a Central Bank and resolute credit control will do much to displace the old attachment to a gold currency and the conception of automatic action.

Much interest attaches to the Commission's attempt to deal specifically with the question of internal stability and the problem offered by the silver rupee. Like Sir Basil Blackett, the Commission desire in some sense to "dethrone" the rupee, but without employing drastic measures and without looking forward to the withdrawal of its full legal tender quality. They seem to have satisfied themselves that the rupee is not fully trusted by the Indian public; and they challenge the practice of backing the paper note by another note "printed on silver." The rupee is costly and also inconvenient on technical grounds; and its predominance leaves the standard permanently exposed to the menace, however remote, of soaring silver prices. It may be agreed, perhaps, without pausing to discuss these points, that the limitation of the use of the rupee to small change transactions is an eminently desirable objective. But is it attainable?

The Commission propose to make the coined rupee and the new paper currency, which will be a bank issue replacing the present Government notes, convertible in bulk into bars of 400 oz. fine gold (value about £1700), and propose variable and deterrent rates for these internal sales of gold which will normally make it cheaper for the bullion dealer to obtain his gold by direct importation rather than from the Bank. This is the special feature of the Commission's "gold bullion standard," which in their view (Report, para. 60) constitutes it "an absolute gold standard," and they claim for the system (para. 61) that it is "simple and certain" and that it provides a right of convertibility that is "intelligible to the uninstructed" and a gold basis for the rupee that is "conspicuously visible." Confident in the eventual popularity of a note issue so supported, they propose that the new issue shall carry no legal right of convertibility into rupees. But they contemplate the continuance in practice of facilities for "the free exchange of notes for rupees so long as the people desire to obtain metallic rupees in exchange for them" (para. 69).

In my judgment a convertibility so remote and so perplexing in definition will in no way interest the general public in India, while to the very few—the bankers and larger bullion dealers—whom it might concern it is definitely intended to be unattractive.

Sir Basil Blackett alluded in his evidence (Q. 412) to the "very considerable gain in popularity for the note if it had printed on it the statement that it was payable in gold." But he had in mind a gold currency with every note of perhaps Rs. 20 or upwards individually convertible into a fixed amount of legal tender gold coin. Such a right of convertibility would undoubtedly be simple, intelligible and conspicuous in daily experience. But these claims are not applicable to the complicated alternative which the Commission offer.

The further displacement of the coined rupee must, I believe, be left to time, assisted by a consistent policy, which the Central Bank can do much to enforce, of using all legitimate means to popularise the note. Meanwhile, it is premature and, I suggest, incorrect in principle to delete from the statute book the legal convertibility of the note issue into rupees. Free interchangeability is required to maintain the two forms of legal tender at an identical value, and the obligation to convert should be absolute and statutory.

Any extensive displacement of the rupee means that a large portion of the immense amounts now in circulation and hoards must eventually return to the issuing authority. The Commission have not really faced this aspect of their policy. They propose measures to protect the infant bank from being permanently encumbered with surplus rupees, and for the rest throw the responsibility on the Government, who are to finance the withdrawal of rupees with only fractional assistance from existing assets. They will thus be forced into obtaining funds either by sales of rupee silver without regard to the state of the silver market or by borrowing for this single monetary purpose without reference to the possible adequacy of India's monetary resources as a whole. The disposal of surplus rupees is likely to cause grave embarrassment in the best of circumstances, as already a sum of over 100 crores lies in reserve, much of it, it may be, finally redundant.

I have necessarily confined my survey to the broader features of the Commission's plan. Their work is original and distinctive all through. The banking proposals and the whole treatment of the question of currency and credit control seem to me quite admirable. The gold standard under Central Banking administration, even without the extraneous feature of gold issues for internal use, would be complete as a monetary system, and when fully understood would, I believe, have gone far to satisfy the remoter aims which underlie India's intense interest in her currency system.

Where the Commission have, I think, failed to some extent is in the effort to compete in attractiveness with the gold currency scheme which they have rejected. No competition is possible. Their special proposals for dealing with the internal problem do little to advance its solution and entail a heavy sacrifice of simplicity. But whether these are abandoned or maintained I feel the utmost confidence as to the far-reaching advantages which India will derive from the Hilton Young Commission's work.

J. B. BRUNYATE

Report of the Indian Taxation Inquiry Committee, 1924–5. (Government of India, Central Publication Branch, Calcutta. Pp. 447. Price 3*s*. 3*d*.)

UNDER the extremely able guidance of Sir Basil Blackett, the Finance Member of the Government of India, attempts have been made of late in various directions to put the financial administration of India on a sound basis. The institution of a scientific inquiry into the tax-system of the country has been one of such attempts. The main terms of reference to the committee were: (1) "to examine the manner in which the burden of taxation is distributed at present between the different classes of the population"; (2) "to consider whether the whole scheme of taxation—Central, Provincial and Local—is equitable and in accordance with economic principles, and if not, in what respects it is defective," and (3) "to report on the suitability of alternative sources of taxation."

With a view to leaving no room for any suspicion that the Government was appointing the Committee for increasing the tax-burden on the people, it was clearly stated in the Resolution that there was no intention to impose any additional taxation, nor indeed was there any need for meeting additional expenditure, but that the only object of Government was to know how the existing burden of taxation was distributed and in what directions reform might be effected so as to suit the changed economic conditions brought about by the war and the recent development of self-government in the country.

The work of the Committee was an enormous one, seeing that their terms of reference were very general and they had to traverse a wide field. After collecting all previously existing material (both official and non-official) that might help their inquiry, the Committee issued an elaborate questionnaire and

proceeded to examine witnesses all over the country. In spite of the refusal of a few politicians here and there, who "non-co-operated" with the Committee in their task, the Committee were able to get the assistance of a very large number of witnesses (288 in number), besides receiving numerous notes and memoranda on different aspects of their inquiry from various persons. It is, however, one of the defects of their work—a rather serious one, telling a good deal on the value of their Report—that in a subject like taxation, where they were asked to inquire as to whether the whole scheme of the Indian system was equitable and in accordance with economic principles, the Committee should have felt satisfied with the examination of witnesses within the country itself, and not considered it necessary or desirable to examine expert witnesses abroad, especially in England, and get themselves acquainted with the latest developments of economic thought in regard to taxation. The result is that the Report of the Committee, while containing a reasoned inductive study of all facts and statistics laboriously gathered by them, says not a word as to what is an equitable system of taxation or what are the principles on which it should be based. The Committee have evidently had no sympathy with such principles as "maximum social advantage" and "minimum social sacrifice"; and, as would seem from Question 29 of the questionnaire they issued, they have been from the beginning under the impression that the four canons of taxation as enunciated by Adam Smith, and as popularly understood, should in any case be accepted as the basis of their discussion.

Judged on the whole, the Report is mainly concerned with tax-administration, dealing largely with administrative difficulties and administrative expediency, and fortifying itself by frequent quotations from and references to prior administrative proceedings and reports, and the opinions of experienced officials. From this standpoint the Report may be said to have done well.

With regard to item No. I of their terms of reference, the Committee would seem to have made an attempt to examine the manner in which the burden of taxation is distributed at present among the various classes of the population, but it would appear that they have viewed the matter from a wrong perspective. Instead of finding out the incomes of the different classes of people and seeing which of such classes are getting below the minimum or minima of subsistence, and what kinds of taxes impinge on the necessaries of life and should be removed, the Committee have simply compared the average tax that each class paid before the

war with what it pays now; and, proceeding from this standpoint, have simply stated that the burden of taxation on the urban labourer, on the landless agricultural labourer, and on the small urban trader is greater now than before. They have not thought it prudent or necessary to discuss the question whether, even if the enforcement by positive action, on the part of Government, of a national minimum of subsistence is not practicable at present, the time has not yet come for the abolition of all such taxation as invades the minimum resources required to keep body and soul together. If they had recognised this fact, they would have recommended the abolition of the duties on salt, matches, kerosene as well as on coarse cotton goods.

With regard to the taxes which the Committee has recommended either to be abolished or reduced, and to those which they wish either to be newly introduced or, being already in existence, to be further extended or enhanced, one general remark has to be made, namely, that there is no discussion at all, from the economic point of view, about the propriety of the steps recommended. The Committee throughout their Report are evidently guided either by what other Reports, such as the Report of the Fiscal Commission, have stated, which they accept without argument, or by what has been sanctioned by the practice of other countries.

It is unnecessary to mention here the details of the numerous proposals concerning the Central, Provincial and Local taxes, which they have made. For a general appreciation of the Report, it will be sufficient to note the following: (1) the retention of the salt tax, which they have sought to justify on the ground that "its burden is extremely small," though they recognised the fact that if relief should be given at all to the poorest classes of the population, it could be most easily given by the abolition of the salt tax. Instead of recommending the removal of this tax, we find them advocating a reduction of the import duty on sugar, which in this country is a luxury or comfort consumed mainly by the rich and middle classes and not an article "largely consumed by the poorer classes," as the Committee would like to imagine; (2) the abolition of the export duty on hides, which the Committee, with the exception of Dr. Paranjpye, would recommend for the reason that it has failed in its purpose of assisting the local industry; (3) the reduction of the non-judicial stamp duties, which they have rightly recognised to be mere fiscal legerdemain and ought not to be more than moderately oppressive on the population, though in the same breath they suggest the levy of

new stamp duties on Stock Exchange transactions; (4) the standardisation of land revenue at a percentage of the annual value of land, not exceeding 25 per cent., so as to ease, or at any rate steady the burden on the land-owners; (5) the conversion of the existing super-tax on companies into a Corporation profits tax, and the abolition of the exemption limit which at present exists; (6) a regrading of the income-tax, and lowering of the super-tax limit from Rs.50,000 to Rs.30,000; (7) an increase in the excise duty on country-made foreign liquors, and the licence fees for fire-arms, and the imposition of new duties on patent medicines, aerated waters, and tobacco; (8) the introduction of an inheritance tax or succession duty by means of a general extention of probate duties, on a graduated scale; (9) the imposition of additional export duties on lac and other suitable articles of export; and lastly (10) the extension of income taxation to agricultural incomes, or at least the inclusion of such incomes, for the purpose of determining the rate at which the other incomes of assessees should be taxed.

In connection with the additional and new taxes recommended by them, the Committee have suggested an order of priority for imposing them; though there is no discussion in their Report as to why such an order should be adopted. In particular it would appear that the Committee, in suggesting the general extension of probate duties and an income-tax on agricultural incomes—both of which they regard as the most important recommendations of their Report, have not had sufficient courage to emphasise the justice of these impositions and the necessity for their immediate adoption by Government, but would postpone them to a late stage in the order of precedence they have given.

Then, coming to the division of taxes between the Central and Provincial Governments, the Committee are barely satisfied with administering a dose of administrative advice and confirming in general the Meston plan. There is no scientific study or appreciation of the fact that the centrifugal system now obtaining is largely a creation of the Government, and that India has long been treated in the past more as a National State than as a Federal one. And there is also no adequate discussion of the problem of "harmonisation" of Central and Provincial taxes, and Provincial and Local taxes, in the light of the experience gained by other countries, notably Australia.

Lastly, with regard to the machinery of taxation, especially of the income-tax, the Report of the Committee is very disappointing. To make income-tax administration efficient and agreeable,

nothing is more essential than the introduction of a popular element in the machinery of assessment, in the shape of a Board of Reference or other similar body, to whom assessees might be given the option of referring their disputes with income-tax officers on questions of fact. Without a popular element of some kind to intervene, income-tax administration is apt to become a fiscal oppression, as is already threatened.

On the whole, on reading the Report of the Committee the general impression left in the mind is that we have in it, as already mentioned, more an administrative report on the working of the existing Indian system, with as far as possible a defence of it, than a scientific inquiry into its equity, economy or efficiency.

A. RAMAIYA

THE REPORTS OF THE SOUTH AFRICAN ECONOMIC AND WAGE COMMISSION (1925)

IN order to convey the full significance of the two Reports of the Economic and Wage Commission of 1925 in South Africa it is necessary to indicate first of all the extent of recent industrial development. The beginnings of railway construction were made in 1859, diamond mining was re-organised on a capitalistic basis after 1880, gold mining began in earnest in 1886; but the development of manufacturing industry in South Africa dates only from the war of 1914–18. It resulted directly from the difficulties experienced in obtaining adequate supplies of manufactured imports during the war, and its continued existence is due to the high prices of 1919–20 and the more recent adoption of a strongly protective policy. Compared with 1915–16, when the annual census of production was first taken, there had been by 1923–4 increases of 81 per cent. in the number of persons employed in factories, of 130 per cent. in the amount of salaries and wages paid, and of 124 per cent. in the " value added " by process of manufacture (wholesale prices have risen by about 11 per cent.), but nevertheless manufacturing industry in 1923–4 still contributed only about 17 per cent. of the national income.

Industrial development has been accompanied by trade union development, membership increasing from 10,500 in 1915 to a maximum of 135,000 in 1920, and then declining to 87,000 in 1923–4. The effect on legislation has been considerable, and the first Nationalist-Labour Pact Government which assumed office in 1924 found it desirable to transfer labour matters from the Department of Mines and Industries to a newly-constituted

Ministry of Labour. The department administers a Workmen's Wages Protection and Compensation Act of 1914, a Factories Act of 1918, a Juveniles Act (1921) setting up Juvenile Affairs Boards and employment exchanges, an Apprenticeship Act of 1922, an Industrial Conciliation Act of 1924, and now a Wage Act of 1925. These six Acts are intended to comprise a code of legislation for the regulation of industrial development. The somewhat strange course was taken of first setting up, under the Wage Act of 1925, elaborate machinery for the fixing of wage rates by an independent Board, and then immediately appointing an Economic and Wage Commission to examine and report *inter alia* on "the influence of public wage regulation upon industrial development." As was to be expected, the Commission's Reports contain recommendations for the immediate amendment of the Act.

The Wage Board set up by the Wage Act of 1925 bears a relation to the Conciliation Boards and standing Industrial Councils under the Industrial Conciliation Act of 1924 which is broadly similar to that between the Trade Boards and Joint Industrial Councils in England; that is, the Wage Board is intended to act primarily in the unorganised industries, and the employers and workers who prefer conciliation to compulsory arbitration can escape from the attentions of the Wage Board by setting up organisations sufficiently representative for registration under the Act of 1924. There are, however, important differences. In order to secure uniformity of guiding principle in making awards, a single Wage Board of three members acts for the whole country, and the danger of congestion of work is to be overcome by a provision that investigations may be conducted by sub-boards, presided over by the individual members, which will report to the Board. For purely political reasons the Act excludes agricultural workers, domestic servants and Government (including railway) employees from its scope. At least one month's notice of any awards must be given to enable objections to be lodged, and these objections may be referred by the minister to the Board for investigation and report. The Board investigates, and reports on, any question of wages or conditions of work referred to it by the minister, or on the application of registered associations of representative bodies of employers or workers. Moreover, on the application of the organisation on either side, if the minister so directs, the Wage Board must investigate questions arising even in industries for which conciliation machinery exists under the Conciliation Act. Concerning this provision the Commissioners made recommendations.

The terms of reference under which the Economic and Wage Commission was appointed amounted to an instruction to investigate and report on the economic condition of the Union of South Africa in so far as the payment of wages is concerned. It should be mentioned that two overseas gentlemen were invited to serve, one being the Chairman, Mr. Stephen Mills, an Australian Civil servant, and the other Professor H. Clay of Manchester University. These two members and an employer, Mr. John Martin, produced one Report, with a few reservations by the Chairman. The other three members, who produced an independent Report, were the Chairman of the Wage Board set up under the Act, Mr. F. Lucas (an advocate prominent in the Labour Party); Mr. W. H. Rood, a farmer Nationalist member of the House of Assembly; and Mr. W. H. Andrews, a Trade Union leader, who added a somewhat damping note to indicate that he was signing the less unsatisfactory of two inadequate reports.

The Clay–Martin Report begins with an examination of the range of wages and earnings in the Union, and reveals a serious gap in the otherwise excellent statistical service of the Government Department of Census. Available records relate almost exclusively to white labour employed in urban areas, whereas "four-fifths of the wage-earners in the Union are . . . non-European, and three-quarters of the population (44 per cent. of the European population) are resident in rural, not urban, areas." Information specially obtained from magistrates in selected rural areas showed a very wide spread of wage-rates in different areas. Only for printing and, in certain cases, for building is there a legal obligation under national conciliation agreements to pay rates of wages in rural areas based on urban standards. In other occupations "the customary wages of the local artisans regularly employed in many of the country towns have been and are . . . about one-half, and reckoned on the minimum scale often less than one-half, the ruling rates of wages in the chief towns (p. 12). For a limited number of skilled male occupations wages in the chief urban centres are standardised at somewhat above £1 a day, a rate which has persisted since the scarcity of white labour in earlier days on the goldfields of the Rand.

In the case of non-European workers the spread in wages is most marked. At the one end, a small number of "coloured" workers (*i.e.* of mixed race) in Cape Province rank as skilled workers, and the rates vary downward from this maximum through

different occupations and different districts to a minimum in the case of agriculture. Coloured workers who have risen above the status of skilled artisans have for the most part done so by being able to pass as Europeans. Whereas the Commission found that "the native labourer who works with skilled craftsmen in building or engineering would receive on the Witwatersrand £1 a week, as compared with £1 per day or more which is the skilled man's rate," it found it impossible "to give an adequate indication of the diversity of conditions that apply to non-European employees in agriculture. There are many grades of labourer, from share tenant to wage-earner; the industry is not on a cash basis, or even on a wage basis; payment in kind makes it impossible in many cases to show remuneration in terms of money value." The best-paid farm labourers are the Cape coloured, receiving usually from 2*s.* to 3*s.* 6*d.* per day "without payment in kind or privileges." As regards natives, in many cases the only distinguishing features between their working conditions and serfdom are the personal freedom granted by the Slave Emancipation Act of 1833 and, possibly, under-nourishment to-day. Even in the matter of personal freedom the Native Labour Regulation Act of 1911 (Section 14) and the Masters and Servants Acts in the various provinces render a farm labourer who breaks his contract of service liable to a *criminal* prosecution. The Clay–Martin Report favours the continuance of these provisions on account of protection afforded to the workers in other sections of the Acts.

The Lucas–Rood Report supplements the information concerning the spread of wages by a diagram (p. 265) based on a frequency grouping of the numbers of workers of each race, in grades of annual incomes below £500. The diagram shows that—

Approx. Percentage of Total Wage-earners below £500 per annum.	Wage Group. £. per annum.	Approx. Percentage who are		
		Native.	Coloured.	European.
55	9– 36	90	7½	2½
25	36– 60	65	25	10
10	60–120	25	45	30
6	120–240	5	23	72
4	240–500	—	1	99

The figures must, however, be regarded as a rough approximation. The Census Department estimates the number of wage-earners (excluding Bantu in the native reserves) at 1,871,000 in 1923.

In order to ascertain the change in the real wages of adult

male European artisans in the principal towns of the Union since 1910, the authors of the Clay–Martin Report follow what apparently is the advice of the Census Department officials (*South African Official Year Book*, No. 7, p. 286), and make use of the cost of living index which excludes "sundries." This calculation yields an increase of 6 per cent. in real wages. When "sundries" are included the real wage figure shows a decline of 2·7 per cent. Comparing the 1924 figures with those of other countries for certain occupations in the building, engineering and printing industries, they reach the conclusion (p. 26) that "South African rates are much higher than rates in any European country. They are considerably higher in most cases than the corresponding rates in the largest Australian cities. They are higher in Pretoria and the Witwatersrand than in Ottawa. Only in Philadelphia, if these representative occupations can be taken as typical, is the general level of wage rates higher than in South Africa." On the other hand, "the labourer who assists the skilled craftsman is in South Africa usually non-European. His wages are invariably lower than wages in the other countries of which we have particulars, approximating, however, in the higher (South African) wage centres to those of a white labourer in Milan, Brussels or Berlin." In a cautious attempt to estimate the relative purchasing power of the wages of skilled artisans in various countries, the commissioners found (p. 30) that "the cost of living in South Africa is still high compared with most countries, particularly when rents are taken into account. It is, however, not so much in excess of English standards as it was before the war. Moreover, it is not so high as to neutralise the advantage of the high money wages. . . . Only the United States, Canada and Australia show higher real wages; in all European countries real wages are much lower than in South Africa. In England they are 30 per cent. less, in Amsterdam nearly 40 per cent. less, in Paris and Berlin over 50 per cent. less, in Brussels and Milan over 60 per cent. less."

The Lucas–Rood Report puts its trust in the cost of living index which includes "sundries," showing a slight regression of real wages since 1910, and inflating the cost of living in South Africa for the purpose of international comparisons. Because "sundries" comprise approximately one-third of the expenditure of the class of people in respect of whose wages the comparison is being made, "the reader may rightly refuse to have it [*i.e.* an estimate excluding "sundries"] fobbed off on him as a valuable international comparison." The facts that "sundries" include

many manufactured imports which have risen in prices more than the average, that it excludes important items of expenditure such as the education of children, insurance, travel and amusements which have increased in price less than the average, and that an index is required to measure *changes* in the cost of living rather than the exact cost of living of every family, are swept aside with the not very helpful statement (p. 267), that " as any comparison made with the exclusion of ' sundries ' and . . . of rent will be misleading, and no satisfactory general international comparison can be made with the inclusion of ' sundries,' we do not propose to make one."

Returning to the first report, the estimated national income of South Africa in 1923 is compared with the figures for other countries made available by Sir Josiah Stamp in his paper in the *Statistical Journal* for July 1919, in order to provide indices of " the aggregate capacity of industry in different countries to pay wages." A useful distinction is made, to facilitate comparisons, between the total South African income of £186 million (£26 per head of the total population and £43 per head of the occupied population) and the total income from production " under European supervision " (that is, excluding tribal natives in locations and reserves) of £178 million, or £96 per head of occupied persons. The estimate may be compared with Professor Lehfeldt's result for 1916–17, which, adjusted to cover the same items, gives £144·2 million for an *occupied* population of 1,680,000 (or £86 per occupied person). " The aggregate capacity of industry to pay wages is of the same order of magnitude as that of Germany or Italy rather than of Australia or North America." " We had no evidence that the higher level of wages in industry, transport and mining . . . was at the expense of capital. . . . The present level of European wages is due to, and dependent on, the present level of native or other wages; and neither can be increased except at the expense of the other, unless there is an increase in production per head" (p. 77). The Lucas-Rood Report makes no definite criticism of these findings, but rather skirmishes round the fringe of the opposing argument, maintaining that skilled wages have declined in relation to the cost of living, in spite of a substantial increase in the national income; that the Government might assist in reducing the proportion of the national dividend going to property-owners by controlling " wild cat " flotations of shares in new companies, by " preventing or reducing the power of landowners to exact toll from land-users," and by reducing distribution costs. The main conclusions, however, remain intact.

There is no economic problem in South Africa more confused by the introduction of irrelevant considerations than that of the employment in European industry of workers who happen to be of non-European race. Much space is occupied in these two Reports by the question of the relationship between these workers and Europeans. As regards the natives, the Clay–Martin Report argues (p. 152) that "the contact of native and European has lasted too long, and their economic co-operation is too intimate and well-established for the natives to be excluded from European areas and European industries." Even in the native territories of the Transkei, where nearly a million of the 4·7 millions of native population still live in tribal conditions, "the contact with European economic civilisation has undermined the traditional native economy." Of approximately 200,000 natives in employment on the gold, coal and diamond mines of the Transvaal, 33 per cent. are from the Transkei territories, working usually on a nine-months' contract in order to supplement the living which their wives and families can secure by farming in the inadequate reserves. Outside the reserves the bulk of the natives are squatting on European farms, giving service in return for permission from the owners to cultivate a strip of land and graze cattle, or they are definitely farm labourers, or they have been forced into the towns, where possibly 300,000 urbanised natives endeavour to maintain a "civilised" existence on the wages of unskilled labourers or house-boys. A limited number, probably less than 40,000, are ministers, teachers, professional men, clerks and shop assistants, or occupy other posts above unskilled work. Of recent years increased numbers of natives have been forced into the towns, and they will continue to be driven in until more adequate reserves are provided and the conditions of agricultural employment are improved. It is, however, already clear that the line for discriminatory treatment in economic legislation between the strong and the weak can no longer be drawn on the principle of blindly following distinctions of race or colour. There are natives who do not need or desire special treatment, just as there are "poor whites" who do need it. The Clay-Martin Report leaves no doubt as to the views of its authors concerning the future of the natives. "We are convinced that the native can and should increase his economic usefulness by widening the range of his occupations and raising the level of his skill. . . . The ultimate destiny of, at any rate, a majority of the native population of South Africa is to be absorbed in and assimilated to the economic system which Europeans have introduced" (pp. 153–5). As for the urbanised natives, "minimum wage orders and awards

should be directed to raising the low wages they receive at present as far as is consistent with retaining them in employment" (p. 158).

It is refreshing to find similar passages in the Lucas-Rood Report. "Every care must be taken to see that the native in the Union is in no way precluded from the right to economic development, either through agriculture in his own territories or in industry where he has gone among the Europeans" (p. 333); "as far as the detribalised natives are concerned, it would appear to be too late for any other policy than that of adoption into the European economic system. . . . Complete separation between white and black is now apparently impossible" (p. 323). From a reference to unskilled native labourers as "muscular machines," it would appear that the authors recognise that the employment of native labour wherever it is economic constitutes as desirable an "invention" as the installation of any "labour-saving" machine which reduces the costs of production in a similar way; and that to reject an increase in the national income, on account of the unemployment which may temporarily affect the displaced artisans, would be no less foolish in the first instance than in the second. If additional reserves can be provided, there need be no fear of prolonged unemployment among white artisans, such as might result from the too rapid migration of natives forced to the towns in search for a livelihood. As the Clay-Martin statement puts it, "the effect on the higher standard worker of this competition of lower standard labour is to compel him to seek an outlet for his labour in which his special qualities of skill and initiative will have more scope. . . . It is desirable that he should be under constant pressure so as to make the best economic use of his faculties" (p. 127). Unhappily these few gleams of light only serve to deepen the gloom which will descend on the reader as he passes on to other sections of the Lucas-Rood statement. One depressing example is an extraordinary suggestion (p. 311) that the extreme lowness of the standard of life of unskilled workers should be overlooked. "The natives' work is generally of an automatic character, and he has been frequently described as a 'muscular machine.' In these circumstances it is clear that no sound comparison of averages of wages, of output, or of income can be drawn between South Africa and any of the other countries mentioned [Great Britain, Australia and the United States]. To get a fair comparison it would be necessary to devise some method by which allowance could be made in such averages for the use of ordinary machines in those other

countries for work for which in South Africa the so-called 'muscular machine' is used. Such a basis of comparison has not, so far as we are aware, yet been devised." We are, in fact, confronted by a spectacle of the South African ostrich burying its head in a mass of statistics in which it has vainly attempted to conceal the wages, but not the produce, of about four-fifths of the population.

The second signal for the abandonment of the commendable position taken up as regards urbanised natives is the mention of the immigration each year of about 60,000 healthy and vigorous natives from Portuguese East Africa so as to maintain a steady working force (usually staying for eighteen months at a stretch) of about 90,000 East Coast natives on the Transvaal mines. While the Clay-Martin Report discussion concludes that "the ideal of maintaining Union industries exclusively with Union labour . . . could be immediately attained only at great economic sacrifice," the remaining commissioners introduce into their statement a lengthy argument supporting the representations of the South African Trade Unions that the importation of these natives should cease. "By means of the importation of natives from outside the Union the wages of the Union natives can be kept down to the level of wages paid to the imported labourers, and the white unskilled labourer has to compete with them at that level" (pp. 332–3). Using the commissioners' own parallel of the machine, it is difficult to believe, for instance, that the hand compositors who were "displaced" by monotype, linotype and type-founding machines have been reduced in weekly wages to the cost of setting up on the new machines the same amount of copy as one man could previously have set up by hand in a week. The work fund fallacy dies hard.

If one section of the Report is more responsible than any other for the cool reception and immediate burial of these reports in some quarters, it is the examination of the protective policy to which all political parties in South Africa have more or less committed themselves. The Clay-Martin statement deals a series of resounding death-blows to the arguments used for stimulating the development of industries in South Africa by means of a tariff; the complete absence of any reference to the subject in the companion statement serves to provide an echo for their arguments, while a reservation (p. 213) by Mr. Stephen Mills (whose home, it must be remembered, is in Australia) begins with an observation, regarding this statement of the case against the policy of tariff protection, that "in certain circumstances a case

can be made for that policy," but continues with a series of objections to the adoption of protection in South Africa. The policy is condemned because it reduces the market overseas for the purchase of South African agricultural products, whilst no great expansion of the home market is possible. Export industries like gold and diamond mining stand to lose by the increases in their working costs, while industries like building and printing, transportation and similar service have no competition to fear and nothing to gain. The higher wages which may be paid in protected manufacturing industry come " from the pockets of the consumers of the products of manufacturing industry—in other words, from the farmers, railway employees, Civil servants, professional men and natives " (p. 164).

Finally, both Reports, in their review of the powers of the new Wage Board, advocate an increase in its independence and a decrease in the discretion of the Minister; definitely favouring the abolition of his discretionary power as to the enforcement of wage recommendations; and also favouring the co-ordination of the Wage Board, through its Chairman, with the Public Service Commission and the Railway Conciliation Board and other bodies that have power to fix wages in certain spheres. Whereas the Clay–Martin statement considered, however, that, in disputes between organised employers and workers, " there must be no attempt to apply compulsion where after proceedings under the Conciliation Act there is no agreement," both the opposing Report and a reservation from the Chairman express preference for an arbitration by the Wage Board rather than a strike, in the event of a complete deadlock. The question is whether the possibility of compulsory arbitration in the case of non-agreement is not in actual practice one of the most fruitful causes of deadlock. The Clay–Martin Report urges (Chap. 5) as a practical policy for the Wage Board a beginning with the lowest-paid workers in an industry, whose wages should first be levelled up before it is attempted to raise the standard. " A rate that represents the lower quartile of existing rates may usually be imposed without causing any dislocation." Each trade must be considered separately in relation to its own conditions and capacity to pay higher wages, but " it is equally important that wages should be considered together as an interdependent system." Attention should be concentrated on those industries in which the wages paid are lower than the cost of living of a family on a " minimum regimen," estimated by the Cost of Living Committee at £90–£110 a year. Men receiving more than that wage, and women receiving

more than two-thirds of that amount, should be left to settle wage conditions by collective negotiation or by direct bargaining. The Wage Board must not attempt to use wage awards as a colour bar. "The function of a Wage Board is to fix wages; if the State desires to effect the substitution of one class of labour for another, it can pass legislation to effect this directly." If the result of a wage award is to displace existing workers, they will tend to depress wages still further in agriculture and domestic service where the Act does not apply.

When arbitrating on a dispute in a well-organised industry, at the request of both sides, the Board should ascertain the bargaining strength of the parties so as to arrive at "a settlement which exactly represents the balance of the interests in conflict, and which the parties will come to recognise as representing just what they could expect to extract or concede" (p. 186). But it is surely an inadequate economic justification for the abandonment of this principle, when making awards in the low-paid unorganised industries, to explain that in the latter case "the Board is the exponent of the general will, which is made up on the necessity of raising these lowest rates" (p. 186). Is political necessity henceforward to be regarded as the test of economic principle? "The general will is always right, but the judgment which guides it is not always enlightened."[1] In the final paragraph of the Clay–Martin Report we read that "what we have said throughout this section is not to be taken to imply that in our opinion the higher levels of wages should necessarily be reduced." The wages of the lower workers "can be raised without taking anything away from the wages of the higher-paid workers, by diverting to them a part of the increase in wealth which is normally to be expected in a civilised society." In withholding their opinion whether it would not be economically more desirable to reduce the extreme inequality now existing at the expense of reducing the higher wages, as well as by raising the lower ones, the authors momentarily run the risk of earning the name of "politic economists." Would such reticence have been displayed if the larger incomes were accruing to property-owners rather than to wage-earners? Again, it is suggested (p. 93) that the fact that the employment of the poorer Europeans in the substitution of white for native labour takes place at wages which "represent, according to our evidence, something above the present economic value of the work done . . . is no objection to taking them as a minimum, since regular pay and regular work are certain to

[1] Bosanquet: *Philosophical Theory of the State*, p. 121.

improve the worker's efficiency, and in time even to make possible a further advance." The industrialist might well retort that his infant industry is equally "certain" to become more efficient one day, if the tariff protection which the commissioners rightly criticise is only maintained at a sufficiently high level.

Such trivial points, however, do not blemish a Report which is a monument to its authors. Whereas the Lucas–Rood Report may serve a useful purpose as an expression of current opinion in certain South African political circles, enough has been said to indicate that the Clay–Martin statement will long serve as a guide not only to the Wage Board itself but to all those whose task it is to guide the development of South African economic life.

ARNOLD PLANT

OTHER OFFICIAL PUBLICATIONS

Report of the Royal Commission on National Health Insurance. (Stationery Office. 1926. Pp. 394. 6*s*. 6*d*. net.)

A ROYAL Commission was appointed on the 11th July, 1924, to inquire into the scheme of National Health Insurance, established by the National Insurance Acts 1911–1922. The result of the inquiry was published in February of the present year. Four of the thirteen Commissioners, unable to accept the conclusions of their colleagues, present a minority Report, while Sir Andrew Duncan and Professor Gray supplement their assent to the Majority Report with certain additional observations.

The evidence presented to the Commission will be of the highest value to the social investigator. The value of the Commissioners' Reports is less certain. The Minority Report lacks thoroughness and distinction. The Majority Commissioners might either be charged with striving to conceal their essential timidity under an accumulation of words and phrases, or commended for the sane and balanced character of their conclusions, according to the point of view.

The National Confederation of Employers' Organisations made so profound an impression on the Majority Commissioners that they recommend that "only such extensions or modifications as involve no expenditure or can be met within the present financial resources of the scheme should be considered as immediately practicable. It is small consolation to a bankrupt to be

told that his doctor's bills have been the main cause of his disaster."

Hence the main structure of the Insurance scheme is hardly touched by their proposals. A little tampering here and there; an outbuilding or so demolished; a tentative suggestion for temporary erections; no exercise of imaginative vision; no attempt to remould the national health services into a really effective form; little attempt even to adjust the relationship of the Insurance scheme to the other health promoting activities of the State. National Health Insurance, a social experiment on a gigantic scale, made in a sordid atmosphere of intrigue and turmoil, was isolated from the other State services, doing essentially similar work. The already considerable overlapping was thereby intensified. The lack of appropriate association and co-operation in the administration of the local public health service was thus a problem which necessarily faced the Commissioners. On the general question they content themselves with the pronouncement that "the trend of development will be towards a unified health service and that in determining future changes full account of this tendency should be taken." Two recommendations are made, which would facilitate in some slight degree co-ordination between Insurance and other public health services: (1) as soon as funds are available, the scope of maternity benefit should be expanded to cover medical and midwifery services, and these services should be administered by the Local Health Authorities and co-ordinated with the other local medical services; (2) Insurance Committees should be abolished and their work transferred to committees of the appropriate Local Authorities, with possibly a co-opted element. But the Report is studiously vague as to the constitution of the bodies which replace the Insurance Committees. The framing of specific recommendations on this question (as on other questions) was perhaps hampered by the knowledge that our Local Government machinery is being vigorously overhauled. A Royal Commission is considering reform of Local Government areas, while the Minister of Health contemplates a complete re-organisation of the Poor Law system.

The Commission are unanimous in their conclusion that the functions of Insurance Committees should be transferred to Local Authorities, but there is a difference of opinion as to the future of the Approved Societies. The Majority Commissioners shrink from recommending that Local Authorities should take the place of Approved Societies as the Authorities through whom sickness and disablement benefits should be administered. They admit,

however, that the question might have to be re-considered in the event of fundamental changes being made in the system of social insurance.

The general case against the Approved Society System is very strong. The existence of 7876 separate financial and valuation units involves considerable extra work in accounting, auditing, and general supervision. The large number of small societies with their multiplication of establishment charges necessitates expensive administration. There is, moreover, much overlapping, and this adds to the cost. In Dundee there are 217 separate societies; 99 of these have less than ten members in the town, 52 have only one member. In Glasgow there are 98 societies with a membership of one each. There are 92 with a membership of between two and ten each. Nor can the Approved Societies be considered really self-governing bodies. It was a fundamental principle of the Insurance Act that an Approved Society should be under the absolute control of its members. Yet this membership control has proved to be largely theoretical except in the case of Friendly Societies and Trade Unions. There is no sense of corporate responsibility. The rules of some of the large societies do not provide for the control by the members to the extent to which they ought to provide. In the National Amalgamated Approved Society two million people are represented by a General Meeting of 50, of whom something like 35 are officials. The rules of the two large Prudential societies, each with over a million members, provide that 50 members, including any officers and members of the Committee present, shall form a quorum. Instead of forming a democratic machinery of government, the Approved Societies have developed a political side of their own. National Health Insurance is closely connected with various forms of profit-making enterprises, such as Industrial Assurance and Workmen's Compensation Act Insurance. Powerful vested interests have been created, determined to maintain their position at any cost. The main ground on which the Approved Society System has been attacked is the serious inequalities of benefit to which it gives rise. The flat rate of contribution combined with free choice of Approved Society has resulted in the segregation of good lives. A substantial inequality of benefits between societies has been produced and, in the case of certain branch societies, between the constituent branches. As a result of the amount of segregation which has taken place, we have sectional insurance, the strong bearing the burdens of the strong and the weak the burdens of the weak. Even the

Majority Commissioners feel that "the disparities which have emerged are greater than are expedient in the interests of the insured community regarded as a whole." To mitigate these inequalities, they propose a partial pooling of surpluses. Mild, and even inadequate, though their proposal is, it has aroused the indignation of the powerful Approved Societies.

It is interesting to note that valuable information for national health purposes is going to waste under the present system. No statistics of local sickness incidence are obtainable. Statistics of occupational sickness are obtainable only with great difficulty.

J. LEMBERGER

Memorandum on Present and Pre-War Expenditure, with Particulars of Government Staffs at Certain Dates. (Cmd. 2718. 1926. 3*d.*)

THE form of this Memorandum has been completely revised, so as to show expenditure under the Heads of (1) Obligatory Services, (2) Grant Services, (3) Self-supporting Services, (4) National Administrative Services. Provision has been made to enable the comparison to be calculated apart from the separable Irish services. The dates taken are 1914, and each year since 1921; as between 1914 and 1926 the comparison is between the Original Estimates. Under (1) there is an increase of £447 m., of which £340 m. is due to Debt Charges, and £107 m. to Pensions; of the latter, £64 m. is War pensions. The increase of £63 m. under (2) is due to the extent of £30 m. to Education grants. The expenditure on (3), Post Office and Road Fund, is balanced by increased revenue. Under (4) there is an increase of £27 m. on Imperial Defence, £16 m. of which is accounted for by the new Air Force. The total percentage increase in Defence expenditure is about 30.

From 1914 to 1926 the staffs of Government Departments show a total increase of about 15,000; there are decreases only in respect of the Post Office (22,000) and the Ministry of Agriculture. The most notable increase is in respect of the Admiralty, over 40 per cent., though the personnel of the Navy has decreased by over 30 per cent. Variations in staffs are also shown since the date of the Armistice.

Unemployment Grants (Viscount St. David's) Committee. Fifth (Interim) Report of Proceedings, from June 1925 *to June* 1926. (Pp. 21. 1*s*.)

THIS Committee administers the scheme of subsidising "accelerated" works of public utility for the relief of unemployment, either by "Loan Schemes," or by "Schemes on Wages Basis." The estimated amount of direct employment in man-months under all approved schemes during the year was about 450,000.

Report of the Ministry of Labour for the Year 1925. (Cmd. 2736. Pp. 164. 3*s*.)

THIS Report shows, with 22 Appendix Tables, the work of the eight Divisions of the Ministry; from so important a volume, a few points only can here be selected for notice. Publication of the *Abstract of Labour Statistics* is being resumed this year. Of 257 disputes settled with the assistance of the Ministry, as many as 165 were settled by arbitration of the Industrial Court. Labour Exchanges registered about 13 million cases, had about $1\frac{1}{2}$ million vacancies notified, and filled about $1\frac{1}{3}$ millions. Payments from the Unemployment Fund—about £$52\frac{3}{4}$ millions—exceeded receipts by slightly over £$1\frac{1}{2}$ millions; the debit balance was £8 millions on 31st December. The minimum Trade Board rate for adult men varied from 10*d*. to 1*s*. $4\frac{1}{2}$*d*. per hour, for women from $6\frac{1}{4}$*d*. to $10\frac{1}{2}$*d*., the latter rate for women being at a higher age than usual; 1*s*. $1\frac{1}{2}$*d*. for men and $6\frac{3}{4}$*d*. for women seem to be average minimum rates. There is an interesting survey of the work of the International Labour Division. D. H. M.

Guide to Current Official Statistics, Vol. IV. (1925). (H.M. Stationery Office. Pp. 262. Price 1*s*. net, post free 1*s*. $3\frac{1}{2}$*d*.)

"THE Fourth Volume of the *Guide to Current Official Statistics*, prepared by the Permanent Consultative Committee on Official Statistics, continues the series of annual surveys of the statistics contained in Government Publications, and deals with all those issued in 1925 and with a selection of those issued in 1926. It may be remarked that the Second Volume of this series included an Appendix covering the more important publications issued since 1900.

The aim of the Guide is not only to place the inquirer in touch with the volumes bearing generally on his subject (usually the sole function of the ordinary type of subject index), but more particularly to inform him which, if any, of these volumes contain statistical information analysed in the manner he desires. These objects are secured by a systematically planned Subject Index, from which references are made by means of serial numbers to the various volumes included in a List of Publications.

The Introduction to the Guide explains, with suitable examples, the method of using it, whilst the novel system of cross-references described in paragraph 5 ensures that the whole of the published material on any given subject can be traced with certainty, often a matter of considerable difficulty with the usual form of index. Thus, for example, a student of coal-mining can, in a few minutes, be made aware of all the officially published statistics bearing on the industry."

Sixth Annual Report of the Forestry Commissioners; Year Ending 30 Sept., 1925. (Stationery Office. Pp. 32. 9*d.*)

THIS Report shows that, while the acreage of plantable land acquired is less, the area now planted is ahead of the programme laid down in the Acland Report.

Report of the Committee of the Board of Trade on the Safeguarding of Industries Act, 1921. (Cmd. 2631.) 9*d.*

Report of the Committee on Hosiery. (Cmd. 2726.) 6*d.*

IN the former Report, the operation of the duties imposed for the safeguarding of "key" industries is reviewed, and their continuance recommended, in one case with an increase to 50 per cent. The latter Report is one of a number which have dealt with the claims of particular industries for safeguarding against foreign competition of an exceptional kind, as defined in the reference. This claim is rejected, unless further evidence is supplied on the question of costs.

Income Tax in the British Dominions; a Digest of the Laws imposing Income Taxes and cognate Taxes in the British Dominions, Colonies, Protectorates, etc. Supplement No. 6. (Stationery Office, 1926. 1*s.*).

Statistical Abstract for British India, 1915–16 *to* 1924–5. *Fourth Issue*. (Calcutta, 1926. Central Publications Branch. 3*s*. 9*d*.)

Report of the Controller of the Currency, 1925–6. (Calcutta, 1926. Central Publications Branch. 2*s*. 3*d*.)

Medical Research Council. Child Life Investigations; Poverty, Nutrition and Growth. (Stationery Office, 1926. Pp. 333. 10*s*.)

THE inquiry relates to the cities and rural districts of Scotland.

CURRENT TOPICS

Two further volumes are about to be published by the Royal Economic Society for issue to members on special terms, namely:

ALFRED MARSHALL: *Official Papers*.
T. R. MALTHUS: *First Essay on Population* (1798).

The price of each volume to members, namely 5*s*. post free, represents an attempt to supply books, which would be published in the ordinary course at much higher prices, as near to the bare cost of production as possible. The price to the public will be 10*s*. 6*d*. net in each case. The Council hope that the great majority of members will see their way to support this project with their subscriptions. It will facilitate distribution if members will send their applications for copies (together with remittance) as soon as possible to the Assistant Secretary, 6, Humberstone Road, Cambridge.

SOME additional copies of Nos. 37–39, 41–43, 47, 50, 52, 81, 82, 89, 92, 95, 96, 98–100, 103, 105, and 107–117 of the ECONOMIC JOURNAL are required for the purpose of completing sets. The Secretary of the Royal Economic Society would be much obliged if any Fellows who can spare their copies of these issues would return them to the Assistant Secretary, Mr. S. J. Buttress, 6, Humberstone Road, Cambridge. A payment of 4*s*. a copy will be made for each copy so returned.

SIR JOSIAH STAMP writes with reference to his article on "Inheritance as an Economic Factor," published in the September JOURNAL:—

"I have since received a communication from Prof. Haensel (of the State University, Moscow), the author of a Russian volume on the history of English Death Duties, published in 1907, and of contributions to the "Finanz-Archiv," etc., on the same subject. It appears that he has for some years been investigating the power of the inheritance factor in producing uneven distribution of wealth, and has collected over a thousand biographies of rich men in many countries. His conclusion has been that "inheritance has no great importance in the uneven distribution," the greater part being made in one generation by self-made men, and "only in a few instances of settled property is wealth kept through the successive generations." He remarks that the German proverb "the third critical generation"—compare our Lancashire saying: "clogs to clogs in three generations"—has proved to be true after a particular study of wealthy people in Hamburg over three generations. He criticises Professor Rignano's proposals and believes a distinction ought to be made in them between land and other forms of inherited wealth."

WE invite attention to the *Economic Review* published *in English* by members of the Economic Department of the Imperial University of Kyoto, Japan, noticed on p. 528 of the ECONOMIC JOURNAL for September, 1926. This represents a very interesting and praiseworthy attempt to make the work of the leading Japanese economists known internationally by publishing articles and summaries of their current work in the English language. The first number, issued in July, is of much interest. Copies can be obtained from the Economic Department of the Kyoto University.

DR. G. W. J. BRUINS, Commissioner of the Reichsbank under the Dawes Plan, and our correspondent for Holland, has been appointed Royal Commissioner of the Netherlands Bank, in succession to Dr. Ant. van Gijn, former Minister of Finance of the Netherlands.

RECENT PERIODICALS AND NEW BOOKS

Journal of the Royal Statistical Society.

JULY, 1926. *Some Observations on Trade Forecasting and Prices.* E. C. SNOW. *Some Statistics concerning Occupational Invalidity.* D. C. JONES. *The Contributions of Italy to Modern Statistical Methods.* C. GINI.

Sociological Review.

OCTOBER, 1926. *The Village Community of Alderney.* S. HARRIS. *The Case for Eugenics.* JULIAN HUXLEY. *Representative Biological Theories of Society.* H. E. BARNES.

Quarterly Journal of Economics (Harvard).

AUGUST, 1926. *The Federal Trade Commission: a Critical Survey.* M. W. WATKINS. *Pantaleoni's Problem in the Oscillation of Prices.* H. L. MOORE. *International Trade between Gold and Silver Countries: China,* 1885–1913. C. F. REMER. *Wages, Risk and Profits in the Whaling Industry.* E. P. HOHMAN. *The Effect of the American Embargo,* 1807–9 *on the New England Cotton Industry.* C. F. WARE.

American Economic Review.

SEPTEMBER, 1926. *Quantitative Analysis and the Evolution of Economic Science.* J. C. COBB. *Relation of Wage Rates to Use of Machinery.* F. D. GRAHAM. *Labour Economics.* P. F. BRISSENDEN.

Political Science Quarterly (Columbia).

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